ORDER NO. VRD-8309-484

# Service Manual

**Vol. 1**

**Panasonic / National VHS**

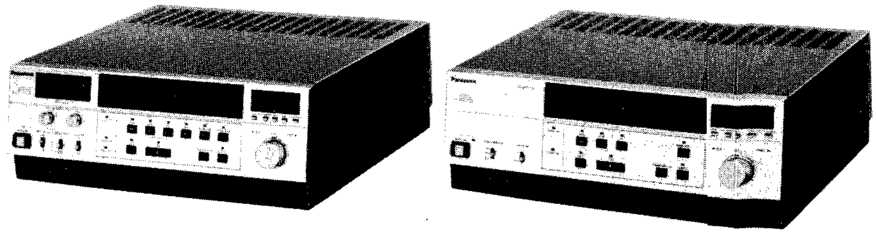
## *Operating Instructions*

Video Cassette Recorder

## AG-6200-E -B -EN -A

Video Cassette Player

## AG-6100-E -B -EN -A



AG-6200

### AG-6200-E/B/EN/A

### SPECIFICATIONS

Power Source: 110/120/220/240V AC, 60/50Hz
Power Consumption: Approx. 60 watts
Television System: CCIR (625 lines, 50 fields)
PAL colour signal
EIA (525 Lines, 60 fields) 4.43MHz
modified NTSC colour signal
Video Recording System: 2 rotary heads, helical scanning system
Luminance: FM azimuth recording
Colour signal: converted subcarrier phase shift recording
Audio Track: 2 tracks
Tape Format: Tape width 12.7mm, high density tape
Tape Speed: 23.39mm/sec. (PAL)
33.35mm/sec. (modified NTSC)
Record/Playback Time: 180mim. with NV-E180 (PAL)
Playback Time: 120min. with NV-T120 (modified NTSC)
FF/REW Time: Less than 4.5min. with NV-E180
Heads: Video: 4 rotary heads
Audio/Control: 1 stationary head
Erase: 1 full track erase
1 audio track erase for audio dubbing
Input Level: Video: TV Monitor connector (8 pins)
1.0Vp-p, 75Ω unbalanced
VIDEO IN connector (BNC)
1.0Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
−20dB, 47kΩ unbalanced
MIC IN jack × 2
−73dB, 4.7kΩ unbalanced
LINE IN jack (Phono) × 2
−20dB, 47kΩ unbalanced
Time code: (Phono)
1.0Vp-p, 10kΩ unbalanced
Output Level: Video: TV Monitor connector (8 pins)
1.0Vp-p, 75Ω unbalanced
VIDEO OUT connector (BNC)
1.0Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
0dB, 600Ω unbalanced
LINE OUT jack (Phono) × 2
−6dB, 600Ω unbalanced
AUDIO MONITOR OUT jack
(Phono) 0dB, 600Ω unbalanced
HEADPHONES jack
−20dB ~ −60dB, 8[illegible]
Time Code: (Phono)
2.4Vp-p, low impedance
unbalanced
RF Modulated: Channel 0 or 1, 76 ± 3dBμ
(open voltage), 75Ω
unbalanced (AG-6200-A)
Video Horizontal Resolution: Colour: more than 240 lines
(on monoscope test pattern) B/W: more than 300 lines
Audio Frequency Response: 50 ~ 10,000Hz
Signal-to-Noise Ratio: Video: B/W: better than [illegible] dB
Colour: better than [illegible] dB
(Rohde & Schwarz noise meter)
Audio: better than 50dB
(Dolby NR IN)

(continued on Next Page.)

**Panasonic / National**

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

(continued from Cover Page.)

Operating Temperature: 5°C ~ 40°C
Operating Humidity: 35% ~ 80%
Weight: 13.0kg
Dimensions: 430(W) × 392(D) × 158(H) mm
Accessories Supplied: 1 pc. Dust cover
1 pc. Fan Bag.
1 pc. DIN-DIN Cable (AG-6200-A)

Optional Accessories: (Parts) RF Converter Unit
ENC17571 (Europe)
ENC17572 (England)
ENC17506 (Asia)
Remote Controller AG-A600-E/EN
Rack-Mounting Frame AG-M600

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

*Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

# AG-6100-E/B/EN/A

## SPECIFICATIONS

Power Source: 110, 120, 220, 240 V AC, 60/50 Hz
Power Consumption: Approx. 58 watts
Television System: CCIR (625 lines, 50 fields)
PAL colour signal
EIA (525 lines, 60 fields) 4.43 MHz
modified NTSC colour signal
Video Playback System: Helical scanning system
Recorded Video Signal: Luminance: FM azimuth recording
Colour signal: converted subcarrier phase shift recording
Audio Track: 2 tracks
Tape Format: Tape width 12.7 mm, high density tape
Tape Speed: 23.39 mm/sec. (PAL)
33.35 mm/sec. (modified NTSC)
Playback Time: 180 min. with NV-E180 (PAL)
120 min. with NV-T120 (modified NTSC)
FF/REW Time: Less than 4.5 min. with NV-E180
Heads: Video: 4 rotary heads
Audio/Control: 1 stationary head
Output Level: Video: TV Monitor connector (8 pins)
1.0 Vp-p, 75Ω unbalanced
VIDEO OUT connector (BNC)
1.0 Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
0 dB, 600Ω unbalanced
LINE OUT jack (Phono) × 2
−6 dB, 600Ω unbalanced
AUDIO MONITOR OUT jack
(Phono) 0 dB, 600Ω unbalanced
HEADPHONES jack
−20 dB ~ −60 dB, 8Ω
RF Modulated: Channel 0 or 1,
76 ± 3 dBμ (open voltage),
75Ω unbalanced
(AG-6100-A)

Video Horizontal Resolution: (on monoscope test pattern) Colour: more than 240 lines
B/W: more than 300 lines
Audio Frequency Response: 50 ~ 10,000 Hz
Signal-to-Noise Ratio: Video: B/W: better than 43 dB
Colour: better than 43 dB
(Rohde & Schwarz noise meter)
Audio: better than 50 dB
(Dolby NR IN)
Operating Temperature: 5°C ~ 40°C
Operating Humidity: 35% ~ 80%
Weight: 12.6 kg
Dimensions: 430(W) × 392(D) × 158(H) mm
Accessories Supplied: 1 pc. Dust cover
1 pc. Fan Bag
1 pc. DIN-DIN Cable (AG-6100-A)
Optional Accessories: (Parts) RF Converter Unit
ENC17571 (Europe)
ENC17572 (England)
ENC17506 (Asia)
Remote Controller AG-A600-E/EN
Rack-Mounting Frame AG-M600

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

*** FOR SECAM CAUTIONS:**

1) In some areas, SECAM colour broadcasts can be recorded on the AG-6200, but such cassettes are not interchangeable with cassettes recorded on other PAL-VHS or FRENCH SECAM-VHS sets.
2) When cassettes recorded on the AG-6200 are played back on the FRENCH SECAM-VHS set, the playback is in black and white. Also, cassettes recorded on the FRENCH SECAM-VHS set, or FRENCH SECAM prerecorded cassettes may be played back in black and white on the AG-6200 and AG-6100.

# INTRODUCTION

This Service Manual contains technical information which will allow service technicians to understand and service the high performance 1/2" VHS cassette video recorder Model AG-6200 and 1/2" VHS cassette player Model AG-6100.

Since its introduction into the professional video market, the VHS-format has been embraced by businessmen and educators alike. To meet the needs of these professionals, Panasonic has developed the AG-6200 video cassette recorder and the AG-6100 video cassette player. Incorporating a 4-head system for standard three hour recording and playback, an aluminum die-cast chassis, a direct drive cylinder and full logic control, the AG-6200 and AG-6100 provide highly precise functions while maintaining superb picture quality. In addition, both units feature dial search, random auto-repeat, sharp noiseless slow and field still functions and 4.43 MHz NTSC playback. Loop-through recording for dubbing to as many as 500 units, see-through front loading of the cassette, and 19" rack mount capability make these two units an ideal way to meet dubbing needs or for meetings or demonstrations.

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**Remarks:**

This apparatus was produced to BS 800:1977.
Dieses Modell entspricht der EG-Vorschrift (für Funkstörungsschutz) 76/889/EG.
La société NATIONAL-PANASONIC-FRANCE, importateur du matériel MATSUSHITA-JAPON déclare que cet appareil est confirme aux prescriptions de la directive 76/889/C.E.E. (arrêté du 14 janvier 1980).
Dit model is onderworpen aan de EEG-richtlijn (ter voorkoming van radio-interferentie) 76/889/EEG.
Denne model opfylder EF direktiv 76/889/EF (for forebyggelse af radiointerferens).

# Features

1. **Recording and playback possible with PAL, and playback possible with NTSC 4.43 MHz systems**

   This unit is designed to record and playback with PAL, and also playback NTSC-recorded tape by using the TV monitor for NTSC 4.43 MHz colour system.

2. **Front Loading System**

   This new design allows you to insert the video cassette into the front of the VTR, minimizing space requirements needed for example in tape duplication racks.
   When a cassette is in the VTR, the cassette-in indicator "📼" appears on the counter display.

3. **Interim Loading System**

   The incorporation of the interim loading system makes it possible to read out control signals during tape rewind or fast forward modes.

4. **Remaining Tape Indicator**

   During recording or playback, the remaining time is indicated on the counter display. A remaining tape display is included with the tape counter, making it easy to see how much tape remains during recording or playback. Also, when the remaining tape is five minutes or less, the 📼 display flashes, letting you know that the end of the tape is near. Once the remaining tape display is set, the remaining tape is indicated in the FF and REW modes also.

5. **14 Step Searching Function**

   There are 14 speeds available for locating the desired scene segment in playback.

| |
|---|
| [Forward direction]<br>×10, ×6, ×2, ×1, ½×, ⅕×, ⅒×, 1/25× |
| [Still]<br>Still image |
| [Reverse direction]<br>×10, ×6, ×2, ×1, ½× |

6. **Repeated Playback**

   This unit is able to repeatedly playback any tape segment.

7. **EBU Time Code Recording and Playback**

   EBU time code signal can be recorded and played back on audio CH 2 of the tape. (AG-6200 only)

8. **Automatic Rewind**

   When the tape reaches its end, the tape will be automatically rewound to its beginning (except during the timer record).

9. **Dual Audio Channel Dolby* NR System**

   Stereo or bilingual programmes can be recorded and played back since there are two audio tracks. The sound quality is improved due to the built-in Dolby NR System.

10. **Dubbing**

    With after recording device which is most convenient, if you wish to dub audio onto audio CH2 track of the tape which is already recorded. (AG-6200 only)

11. **Built-in Audio Limiter Circuit**

    An audio limiter circuit is incorporated which enables transient, too loud audio to be recorded without any distortion. (AG-6200 only)

12. **19" Rack Equivalent**

    It is possible to mount the unit into a standard EIA 19 inch rack.

13. **System Connection**

    This unit can be used as a source unit in a system incorporating NV-8500 editing machine and editing controller NV-A500. The unit is thus upward compatible.

14. **Optional accessory**

    With the optional RF converter, the output of the recorder can be viewed on any conventional TV set.

■ **Other features**

- Record start/stop remote control (AG-6200 only)
- Playback start/stop remote control (AG-6100 only)
- Mode lock function
- Compulsory switching of colour mode
- Directly visible tape mechanism by means of mirror
- By connecting a phono plug to one channel of the audio (line) input, automatic two-channel monaural recording can be performed. (AG-6200 only)

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# For Your Safety

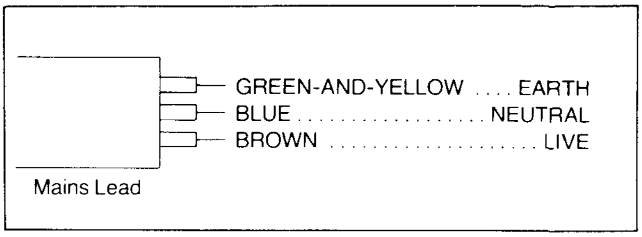
■ **VOLTAGE SELECTOR SETTING.**

The power cord of this unit must be disconnected from mains before the voltage selector is changed.

Before connecting to the power supply, ensure that the selector on the rear panel is selected to the same voltage as your local power supply.
The voltage selector can be adjusted, if necessary, by using a screwdriver, but this adjustment must be made after disconnecting the power cord.

■ **AC POWER CORD CONNECTION. (AG-6200 U.K. only)**

The wires in the mains lead for this apparatus are coloured in accordance with the following code.

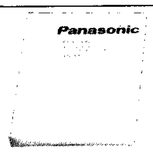

GREEN-AND-YELLOW .... EARTH
BLUE .................. NEUTRAL
BROWN .................... LIVE
Mains Lead

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured red.

# Inspection

### Standard Accessories

After removing the unit from its box, check to be sure it has not sustained any damage. Also check to see that you have the following accessory as pictured below.

| Dust Cover | | Part No. | |
|---|---|---|---|
| <br> | For<br>AG-6200-E<br>AG-6100-E<br>or<br>AG-6200-B<br>AG-6100-B | VFB0048 | 1 pc. |
| <br> | For<br>AG-6200-EN<br>AG-6100-EN<br>or<br>AG-6200-A<br>AG-6100-A | VFB0049 | 1 pc. |

### Optional Accessories

| | |
|---|---|
| RF Converter<br>**ENC17572**<br>For AG-6200-B<br>AG-6100-B<br>**ENC17571**<br>For AG-6200-E<br>AG-6100-E<br>**ENC17506**<br>For AG-6200-EN<br>AG-6100-EN | Remote Search Controller NV-A505 |
| | Editing Controller NV-A500 |
| | Remote Controller AG-A600 |

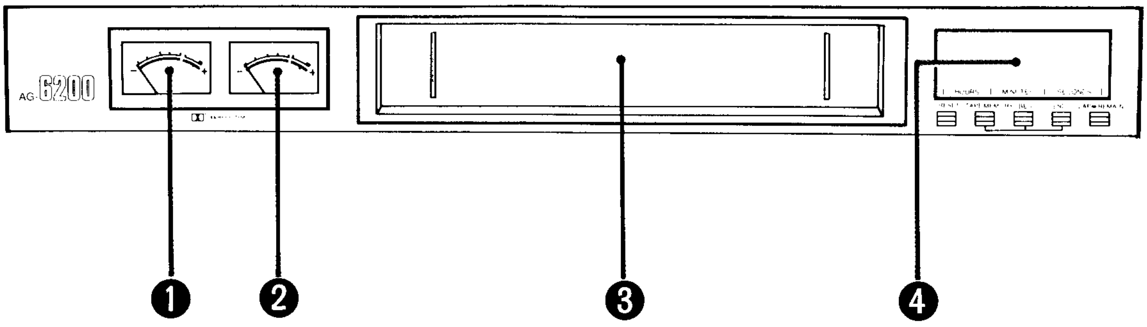
**Regarding Rack Mounting:**

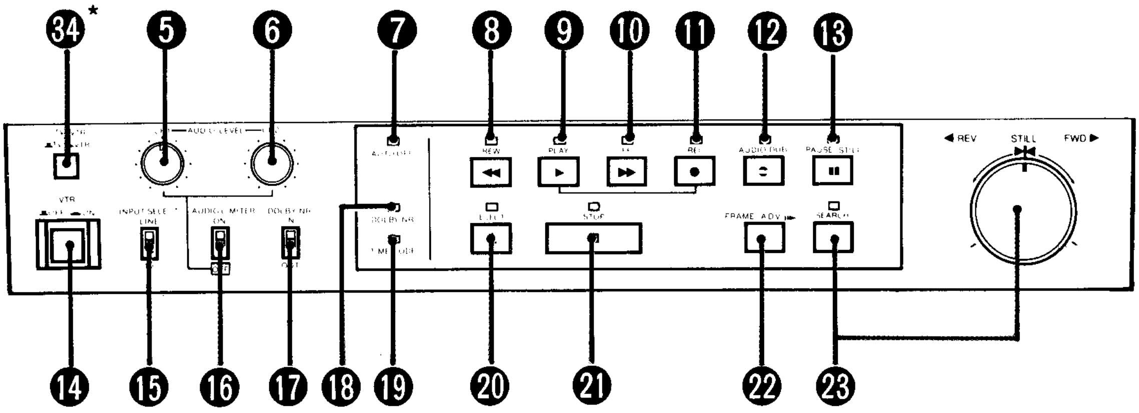
Use optional Rack-mounting Frame AG-M600.
When mounting the VTR in a rack, be sure to install a fan for heat dissipation on the rack before using.
For details, please consult your service personnel.

# Controls and Components

## Front Panel

### AG-6200


AG-6200
1
2
3
4


34*
5
6
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12
13
AUDIO LEVEL
VTR
INPUT SELECT
LINE
AUDIO METER
ON
DOLBY NR
REW
PLAY
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FRAME ADV
SEARCH
◀ REV
STILL
FWD ▶
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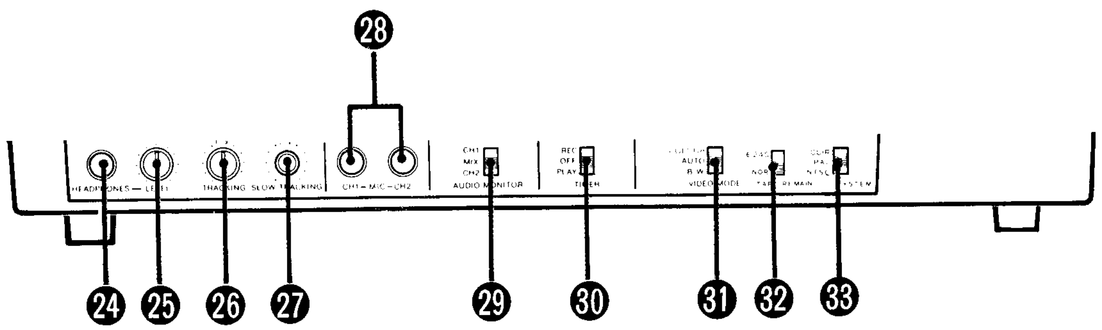
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HEADPHONES — LEVEL
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CH1
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***Note:**
TV/VTR Selector ㉞ is only for AG-6200-EN or AG-6200-A models.

### ❶ Audio CH 1 Recording Level Meter

Level meter for audio CH 1 recording. Monitors audio CH 1 recording level which may be changed by adjusting the level control ❺ so that the level meter needle rarely deflects beyond the 0 dB position.

### ❷ Audio CH 2 Recording Level/Time Code Meter

Level meter for audio CH 2 recording or time code.

1) **When the Audio CH 2 Selector on the rear panel is set to the AUDIO position......**
   Monitors audio CH 2 recording level which may be changed by adjusting the level control ❻ so that the level meter needle rarely deflects beyond the 0 dB position.
2) **When the Audio CH 2 Selector on the rear panel is set to the TIME CODE position......**
   Shows whether the time code signal is present or absent. When the time code signal is present, the meter should read 0 dB position.

### ❸ Cassette Holder

For insertion of a video cassette.

### ❹ Tape Counter

▭: indicates that the cassette is in the cassette holder.
▬: indicates the minus counter position "–∗:∗∗:∗∗" when the tape is rewound beyond the reset (0:00:00) position.
-000: indicates the counter (0:00:00) search mode by pressing the Rewind or Fast Forward Button.
·⊃: indicates the one-time repeated playback mode.
⊂⊃: indicates the random repeated playback mode.
**BEG:** indicates the programme start position which is to be repeated.
**END:** indicates the programme end position which is to be repeated.
**LAP:** indicates the tape position from the reset point.
**REMAIN:** indicates remaining tape time.
**RESET Button:** For setting the tape counter to "0:00:00".
**TAPE MEMORY Button:** For selection in either automatic tape stop when the counter reaches "0:00:00" in the rewind, fast forward, or the repeated playback modes.

Tape Memory can be activated in this sequence:
1st push: -000
2nd push: ·⊃
3rd push: ⊂⊃
4th push: memory off

**BEG Button:** For selection of the programme start position which is to be repeated.
**END Button:** For selection of the programme end position which is to be repeated.

**LAP ↔ REMAIN Button:** For selection of either the lap time (normal tape position from reset point) or the remaining tape time.

### ❺ Audio (CH 1) Level Control/Meter [AUDIO LEVEL-CH 1]

Controls audio CH 1 recording level. Should adjusted so that the Level Meter needle rarely deflects beyond the 0 dB position.

### ❻ Audio (CH 2) Level Control/Meter [AUDIO LEVEL-CH 2]

Controls audio CH 2 recording level. Should be adjusted so that the Level Meter needle rarely deflects beyond the 0 dB position.

### ❼ Auto OFF Lamp [AUTO OFF]

This lamp lights when condensation has formed inside the unit, which cause the unit to cease operating. The cassette tape will be ejected automatically. It flashes when something is wrong with the tape transport (such as tape slack). The unit does not operate when this lamp is either lit or flashing.

### ❽ Rewind Button/Lamp [REW]

When this button is pressed, the cassette tape is rewound to the supply reel.

### ❾ Play Button/Lamp [PLAY]

Pressing this button causes the tape to start playback. If Record Button ⓫ is held down first, and then this button is pressed, the unit will go into the recording mode.

### ❿ Fast Forward Button/Lamp [FF]

When this button is pressed, the tape is wound rapidly onto the takeup reel.

### ⓫ Record Button/Lamp [REC]

This button should be pressed simultaneously with the Play Button to start recording both video and audio.

### ⓬ Audio Dubbing Button/Lamp [AUDIO DUB]

During playback, audio dub may be started by pressing Play ❾ and Audio Dub Buttons at the same time.

### ⓭ Pause/Still Button/Lamp [PAUSE/STILL]

Press this button to pause the tape movement in either the record or playback modes. The Pause/Still lamp will light. A still picture will appear in the playback mode. The tape starts traveling again when the Pause/Still Button during recording (or Play Button during playback) is depressed.

### ⓮ VTR Switch/Lamp [VTR]

DC Power is supplied to the unit when this switch is activated. The audio CH 1 and CH 2 meter lamps light. The tape counter illuminates, and the tape is set to intermediate loading position. When the switch is pushed again, the DC power to the circuit is switched OFF (**Note:** Unit is in STAND BY mode because power supply circuit is still ON).

- Aven om denna omkopplare är i "OFF"-läge, har fortfarande en del av apparaten nätspänning.
- Selv om denne omskifter er i "OFF" stilling, tilføres en del af apparatet stadig strøm.

### Input Signal Selector [INPUT SELECT]

**TV:** To record from the TV monitor connected to the TV Monitor Socket.
**LINE:** To record from the video camera or video signal connected to the Video Input Socket.

### Audio Limiter Selector [AUDIO LIMITER]

**ON:** During recording, minimizes distortion at peak levels.
**OFF:** Peak levels are not limited.

### ⓱ Dolby NR Switch [DOLBY NR]

When the Dolby NR Switch is set to the "IN" position, Dolby NR System is activated.

### ⓲ Dolby NR Lamp

When the Dolby NR Switch is in the "IN" position, this lamp is illuminated and the Dolby Noise-Reduction System is enabled.

### ⓳ Time Code Lamp [TIME CODE]

When the Audio CH 2 Selector Switch is set to TIME CODE, this lamp lights.

### ⓴ Eject Button/Lamp [EJECT]

To remove a cassette, press this button.
If this button is pressed while the tape is moving, (during playback, fast forward or rewind) the unit will stop and then eject the cassette tape.

### ㉑ Stop Button/Lamp [STOP]

Used to stop the tape movement.

### ㉒ Frame Advance Button

To advance a still picture by one frame.

### ㉓ Search Button/Lamp/Dial

After Search Button is pressed, use the dial to adjust the search speed for forward playback between 0 and 10 times the normal playback speed, for reverse playback between ½ and 10 times the normal playback speed.

### ㉔ Headphones Socket [HEADPHONES]

Permits listening with headphones to a channel or channels selected by the Audio Monitor Output Channel Selector ㉙

### ㉕ Headphones Level Control [HEADPHONES-LEVEL]

This volume controls the headphones level.

### ㉖ Tracking Control [TRACKING]

Normally leave this control in its centre "FIX" detent position. Occasionally tapes made on other video cassette recorders may exhibit noise or streaks during the normal playback.
Turn the Tracking Control slowly in either direction to shift the playback scanning of the tape.

### ㉗ Slow Tracking Control [SLOW TRACKING]

For use with slow motion playback.
Normally leave this control in its centre "FIX" detent position.

### ㉘ Microphone Sockets CH 1 & CH 2 [MIC]

These are for connecting external microphones.

### ㉙ Audio Monitor Output Channel Selector [AUDIO MONITOR]

Selects the audio channel which is to be heard on the TV monitor, headphones, through Audio Monitor Output Socket, or RF Output Socket.

**CH 1:** To monitor audio CH 1 only.
**MIX:** To monitor mixed CH 1 and CH 2 audio.
**CH 2:** To monitor audio CH 2 only.

### ㉚ Timer Selector [TIMER]

**REC:** For recording with the timer.
**OFF:** Normally set to this position.
**PLAY:** For playback with the timer.

### ㉛ Video Mode Selector [VIDEO MODE]

Used to avoid mistaken operation with the colour/black & white automatic selector circuit.

**AUTO:** Distinguishes automatically between Black & White and colour video input signals or playback video signals.
**COLOUR:** When the colour signal is weak, S/N ratio is insufficient, etc., and the automatic selector circuit does not operate properly, the unit is placed forcibly on "COLOUR".
**B/W:** When the S/N ratio of the black & white signal is insufficient, causing mistaken operations of the automatic selector circuit, place on "B/W".

**Notes:**

- If colour signals are played back on the black & white mode, or vice versa, the picture quality will deteriorate.
- When recording and playback of Black & While programme in PAL/CCIR, place the video mode selector to B/W.

### ㉜ Tape Remaining Selector [TAPE REMAIN]

Matches time countdown circuits to the type of tape used.

**E240:** For use with the NV-E240 tape.
**NOR:** For use with the NV-E180, E120, E90, E60, E30 tape.

### ㉝ TV System Selector [TV SYSTEM]

This set offers PAL/CCIR/NTSC operations.

**PAL:** recording and playback of PAL colour signal,
**NTSC:** playback of modified NTSC 4.43 MHz colour signal,
**CCIR:** recording and playback of SECAM* colour signal.

## For AG-6200-EN or AG-6200-A models.

### ㉞ TV/VTR Selector [TV/VTR]

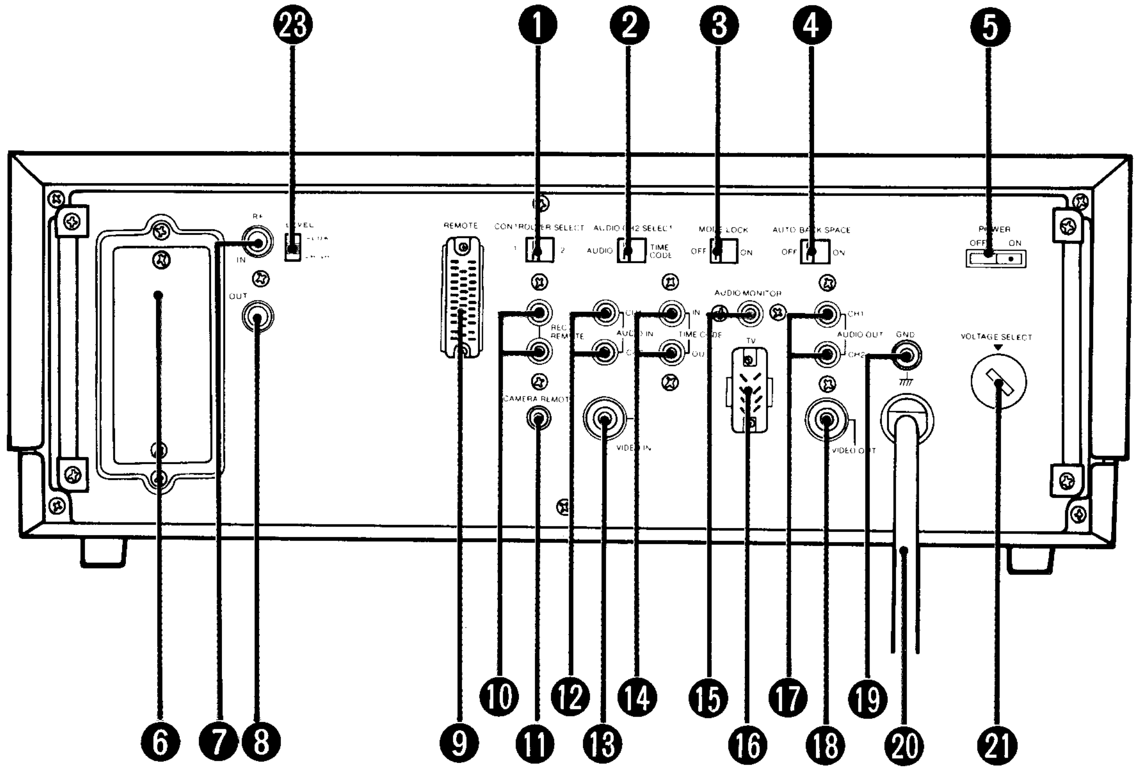
Selects the signal to be viewed on TV.

**VTR:** For playback of the recorded tape or monitoring of recording.
**TV:** For normal TV viewing.

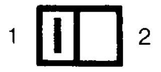
# Connectors

## Rear Panel

AG-6200



**① Controller Selector Switch [CONTROLLER SELECT]**
Use this switch to match command electronics to the type of Controller used.



**1:** Set the switch to this position when using Remote Controller AG-A600, Editing Controller NV-A500 or Remote Search Controller NV-A505.
**2:** Set the switch to this position when using Editing Controller NV-A960.

**② Audio CH 2 Selector [AUDIO CH 2 SELECT]**
This is the selection switch for audio CH 2 or time code signal.
**TIME CODE:** When using the time code signal.
**AUDIO:** When using audio signal.

**③ Mode Lock Switch [MODE LOCK]**
When "ON", inhibits function buttons. See page 31.

**④ Auto Back Space Switch [AUTO BACK SPACE]**
When "ON", the automatic back space function is enabled. Normally, leave the switch in the "ON" position.

**⑤ Power Off/On Switch [POWER]**
Setting this switch to the "OFF" position removes all applied power from the unit.
Note that the front panel VTR Switch is used to turn the unit ON or OFF during normal use.
Set the switch to the "OFF" position when this unit is not used for a long time.

**⑥ RF Converter Slot**
See page 1-10.

**⑦ RF Input Socket [RF IN]**
For connection with the external aerial.

**⑧ RF Output Socket [RF OUT]**
This connects to the antenna terminal (COAXIAL type) of a conventional TV receiver.

**⑨ Remote Control Socket [REMOTE]**
For connection of optional remote controller. Refer to page 1-8.

**⑩ Record Remote Socket [REC REMOTE]**
Used for remote control and connect to the ON/OFF remote control unit or the Record Remote Socket of another AG-6200. See page 1-9.

**⑪ Camera Remote Control Socket [CAMERA REMOTE]**
Connect the video camera's pause remote control cable to this socket.

**⑫ Audio Input Sockets CH1 & CH 2 [AUDIO IN]**
This is the socket for accepting an audio input signal from a line source (audio tape recorder, radio or record player).

**⑬ Video Input Socket [VIDEO IN]**
For connection of an external video source, such as a video camera or another video recorder.

**⑭ Time Code Sockets [TIME CODE]**
Use these sockets to record or read out the time code signal.
**IN:** Input for Time Code recording.
**OUT:** Output for Time Code playback.

**⑮ Audio Monitor Output Socket [AUDIO MONITOR]**
For connection to audio amplifier, or audio input of a TV monitor. This allows monitoring of CH 1 or CH 2 or mixed audio, as selected by the Audio Monitor Output Channel Selector.

**⑯ TV Monitor Socket [TV]**
For connection of a TV monitor (having an 8-pin connector) by using the TV/VTR monitor connection cable.
In case of audio recording: CH1 is recorded. In case of audio playback: Selected channel by Audio Monitor Output Channel Selector is played back.

**⑰ Audio Output Sockets CH 1 & CH 2 [AUDIO OUT]**
Audio signal line output.

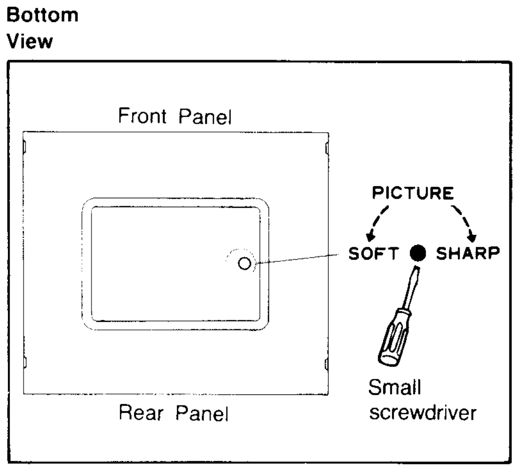
**⑱ Video Output Socket [VIDEO OUT]**
This provides video output signal for use with a TV Monitor, another video recorder, or a time base corrector.

**⑲ Ground Terminal [GND]**
Connect to external ground, if audio hum or buzz is heard while monitoring or playing back.

**⑳ AC Power Cord**
For connection to an AC electric outlet.

**㉑ Voltage Selector [VOLTAGE SELECT]**
This selector can be set for 110, 120, 220, 240 Volt operation.
If it is necessary to change the voltage, consult page 1-3.

**㉒ Picture Sharpness Control [PICTURE]**
Control the playback picture so that its outlines are made sharper or softer. It has no effect on recording.

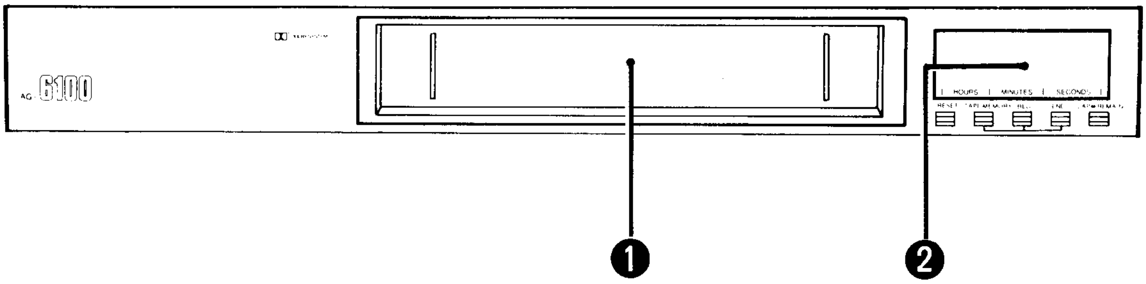


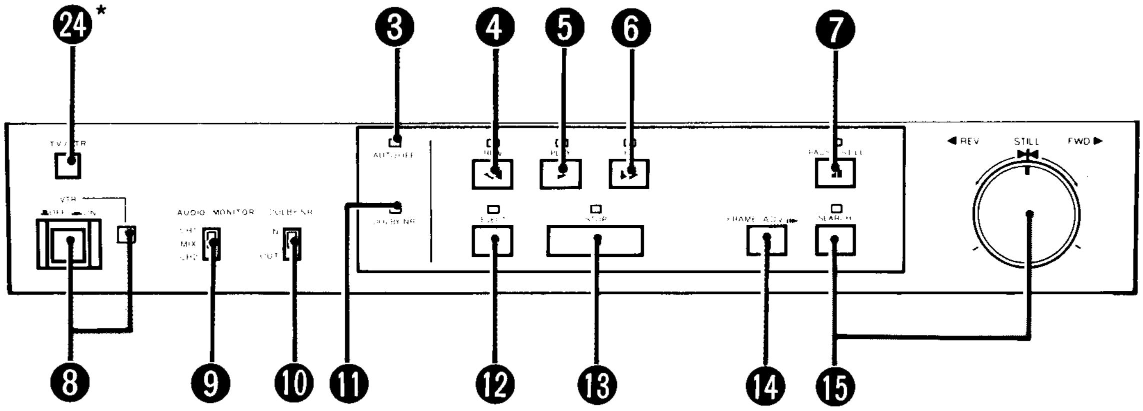
**㉓ RF Signal Level Switch [LEVEL]**
Used to attenuate the reception of the antenna signals.
If the reception is normal, set to "HIGH". If the signal is strong (the stripped pattern appears at the top of the picture on TV), set to "LOW".

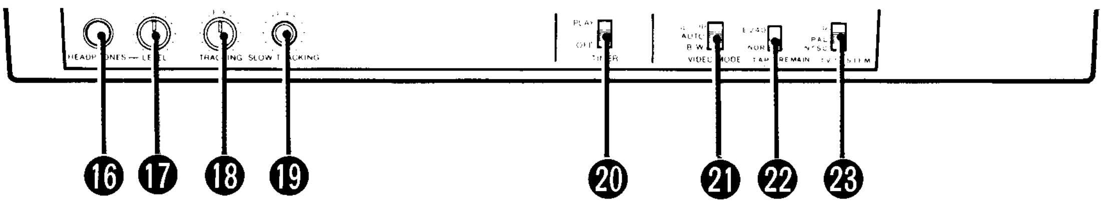
# Controls and Components

## Front Panel

### AG-6100


AG 6100
HOURS
MINUTES
SECONDS
❶
❷


㉔*
❸
❹
❺
❻
❼
TV/VTR
VTR
OFF
ON
AUDIO MONITOR
MIX
DOLBY NR
IN
OUT
AUTO OFF
REW
PLAY
FF
PAUSE/STILL
EJECT
STOP
FRAME ADV
SEARCH
◀ REV
STILL
FWD ▶
❽
❾
❿
⓫
⓬
⓭
⓮
⓯


HEADPHONES — LEVEL
TRACKING
SLOW TRACKING
PLAY
OFF
TIMER
AUTO
B/W
VIDEO MODE
NOR
TAPE REMAIN
PAL
NTSC
TV SYSTEM
⓰
⓱
⓲
⓳
⓴
㉑
㉒
㉓

***Note:**
TV/VTR Selector ㉔ is only for AG-6100-EN or AG-6100-A models.

### ❶ Cassette Holder

For insertion of a video cassette.

### ❷ Tape Counter

▭: indicates that the cassette is in the cassette holder.
▬: indicates the minus counter position "–*:**:**" when the tape is rewound beyond the reset (0:00:00) position.
-000: indicates the counter (0:00:00) search mode by pressing the Rewind or Fast Forward Button.
·⊃: indicates the one-time repeated playback mode.
⊂⊃: indicates the random repeated playback mode.
**BEG:** indicates the programme start position which is to be repeated.
**END:** indicates the programme end position which is to be repeated.
**LAP:** indicates the tape position from the reset point.
**REMAIN:** indicates remaining tape time.
**RESET Button:** For setting the tape counter to "0:00:00".

**TAPE MEMORY Button:** For selection in either automatic tape stop when the counter reaches "0:00:00" in the rewind, fast forward, or the repeated playback modes.

Tape Memory can be activated in this sequence:
1st push: -000
2nd push: ·⊃
3rd push: ⊂⊃
4th push: memory off

**BEG Button:** For selection of the programme start position which is to be repeated.
**END Button:** For selection of the programme end position which is to be repeated.

**LAP ↔ REMAIN Button:** For selection of either the lap time (normal tape position from reset point) or the remaining tape time.

### ❸ Auto OFF Lamp [AUTO OFF]

This lamp lights when condensation has formed inside the unit, which cause the unit to cease operating. The cassette tape will be ejected automatically. It flashes when something is wrong with the tape transport (such as tape slack). The unit does not operate when this lamp is either lit or flashing.

### ❹ Rewind Button/Lamp [REW]

When this button is pressed, the cassette tape is rewound to the supply reel.

### ❺ Play Button/Lamp [PLAY]

Pressing this button causes the tape to start playback.

### ❻ Fast Forward Button/Lamp [FF]

When this button is pressed, the tape is wound rapidly onto the takeup reel.

### ❼ Pause/Still Button/Lamp [PAUSE/STILL]

Press this button to pause the tape movement in the playback mode. The Pause/Still lamp will light. A still picture will appear in the playback mode. The tape starts traveling again when the Pause/Still Button (or Play Button) is depressed.

### ❽ VTR Switch/Lamp [VTR]

DC Power is supplied to the unit when this switch is activated. Power lamp and the tape counter illuminate, and the tape is set to intermediate loading position. When the switch is pushed again, DC power to the circuit is switched OFF (**Note:** Unit is in STAND BY mode because power supply circuit is still ON).

- Även om denna omkopplare är i "OFF"-läge, har fortfarande en del av apparaten nätspänning.
- Selv om denne omskifter er i "OFF" stilling, tilføres en del af apparatet stadig strøm.

### ❾ Audio Monitor Output Channel Selector [AUDIO MONITOR]

Selects the audio channel which is to be heard on the TV monitor, headphones, through Audio Monitor Output Socket, or RF Output Socket.

**CH 1:** To monitor audio CH 1 only.
**MIX:** To monitor mixed CH 1 and CH 2 audio.
**CH 2:** To monitor audio CH 2 only.

### ❿ Dolby NR Switch [DOLBY NR]

When the Dolby NR Switch is set to the "IN" position, Dolby NR System is activated.

### ⓫ Dolby NR Lamp

When the Dolby NR Switch is in the "IN" position, this lamp is illuminated and the Dolby Noise-Reduction System is enabled.

### ⓬ Eject Button/Lamp [EJECT]

To remove a cassette, press this button.
If this button is pressed while the tape is moving, (during playback, fast forward or rewind) the unit will stop and then eject the cassette tape.

### ⓭ Stop Button/Lamp [STOP]

Used to stop the tape movement.

### ⓮ Frame Advance Button

To advance a still picture by one frame.

### ⓯ Search Button/Lamp/Dial

After Search Button is pressed, use the dial to adjust the search speed for forward playback between 0 and 10 times the normal playback speed, for reverse playback between 1/2 and 10 times the normal playback speed.

### ⓰ Headphones Socket [HEADPHONES]

Permits listening with headphones to a channel or channels selected by the Audio Monitor Output Channel Selector ❾.

### ⑰ Headphones Level Control [HEADPHONES-LEVEL]

This volume controls the headphones level.

### ⑱ Tracking Control [TRACKING]

Normally leave this control in this centre "FIX" detent position. Occasionally tapes made on other VTR may exhibit noise or streaks during the normal playback.

Turn the Tracking Control slowly in either direction to shift the playback scanning of the tape.

### ⑲ Slow Tracking Control [SLOW TRACKING]

For use with slow motion playback.

Normally leave this control in its centre "FIX" detent position.

### ⑳ Timer Selector [TIMER]

**OFF:** Normally set to this position.
**PLAY:** For playback with the timer.

### ㉑ Video Mode Selector [VIDEO MODE]

Used to avoid mistaken operation with the colour/black & white automatic selector circuit.

**AUTO:** Distinguishes automatically between Black & White and colour video signals.
**COLOUR:** When the colour signal is weak, S/N ratio is insufficient, etc., and the automatic selector circuit does not operate properly, the unit is placed forcibly on "COLOUR".
**B/W:** When the S/N ratio of the black & white signal is insufficient, causing mistaken operations of the automatic selector circuit, place on "B/W".

**Notes:**

- If colour signals are played back on the black & white mode, or vice versa, the picture quality will deteriorate.
- When playback of Black & White programme in PAL/CCIR, place the video mode selector to B/W.

### ㉒ Tape Remaining Selector [TAPE REMAIN]

Matches time countdown circuits to the type of tape used.

**E240:** For use with the NV-E240 tape.
**NOR:** For use with the NV-E180, E120, E90, E60, E30 tape.

### ㉓ TV System Selector [TV SYSTEM]

This set offers PAL/CCIR/NTSC operations.

**PAL:** playback of PAL colour signal,
**NTSC:** playback of modified NTSC 4.43 MHz colour signal,
**CCIR:** playback of SECAM* colour signal.

***FOR SECAM CAUTION:**

Cassettes recorded on the FRENCH SECAM-VHS set may be played back in black and white on this set.

**CCIR:** playback of SECAM* colour signal.

## For AG-6100-EN or AG-6100-A models.

### ㉔ TV/VTR Selector [TV/VTR]

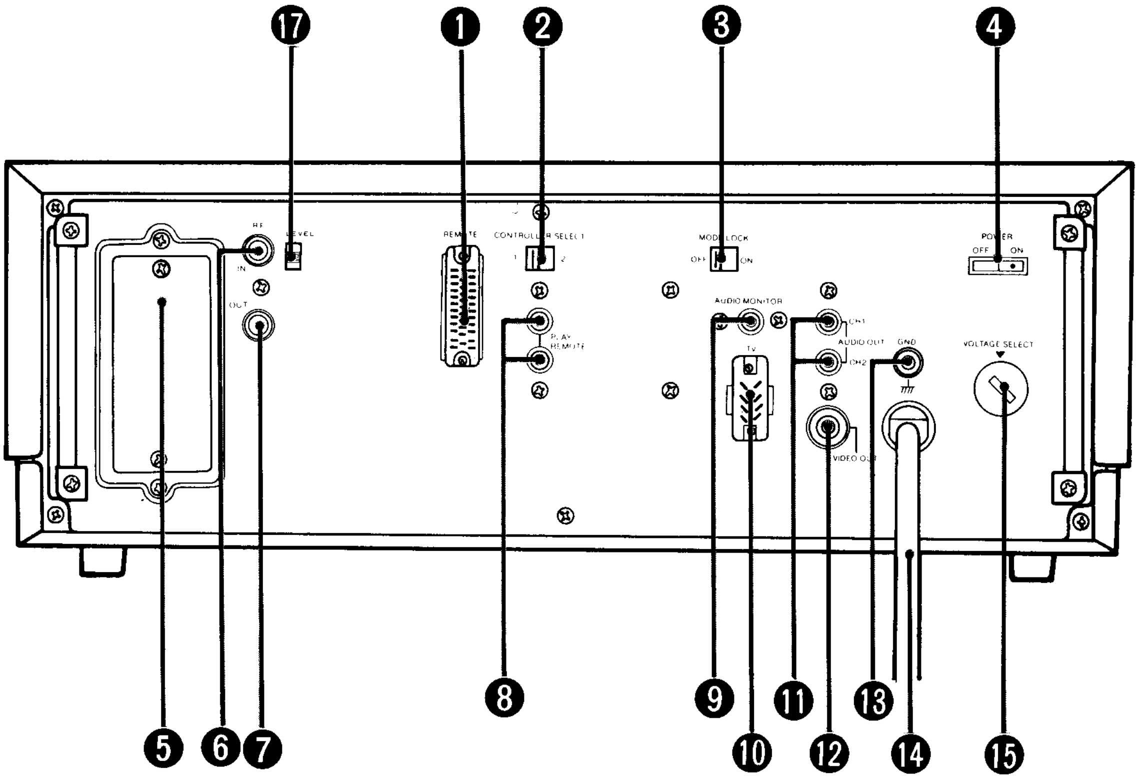
Selects the signal to be viewed on TV.

**VTR:** For playback of the recorded tape.
**TV:** For normal TV viewing.

# Connectors

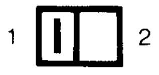
## Rear Panel

AG-6100


⑰
①
②
③
④
RF
IN
OUT
LEVEL
REMOTE
CONTROLLER SELECT
1
2
PLAY REMOTE
MODE LOCK
OFF
ON
AUDIO MONITOR
TV
CH1
AUDIO OUT
CH2
GND
VIDEO OUT
POWER
OFF
ON
VOLTAGE SELECT
⑧
⑨
⑪
⑬
⑤
⑥
⑦
⑩
⑫
⑭
⑮

① **Remote Control Socket [REMOTE]**
For connection of optional remote controller.
Refer to page 1-8.

② **Controller Selector Switch [CONTROLLER SELECT]**
Use this switch to match command electronics to the type of Controller used.



**1:** Set the switch to this position when using Remote Controller AG-A600, Editing Controller NV-A500 or Remote Search Controller NV-A505.
**2:** Set the switch to this position when using Editing Controller NV-A960.

③ **Mode Lock Switch [MODE LOCK]**
When "ON", inhibits function buttons. See page 21.

④ **Power Off/On Switch [POWER]**
Setting this switch to the "OFF" position removes all applied power from the unit.
Note that the front panel VTR Switch is used to turn the unit ON or OFF during normal use.
Set the switch to the "OFF" position when this unit is not used for a long time.

**⑤ RF Converter Slot**
See page 1-10.

**⑥ RF Input Socket [RF IN]**
For connection with the external aerial.

**⑦ RF Output Socket [RF OUT]**
This connects to the antenna terminal (COAXIAL type) of a conventional TV receiver.

**⑧ Playback Remote Socket [PLAY REMOTE]**
Used for remote control and connect to the ON/OFF remote control unit or the Playback Remote Socket of another AG-6100. See page 1-9.

**⑨ Audio Monitor Output Socket [AUDIO MONITOR]**
For connection to audio amplifier, or audio input of a TV monitor. This allows monitoring of CH 1 or CH 2 or mixed audio, as selected by the Audio Monitor Output Channel Selector.

**⑩ TV Monitor Socket [TV]**
For connection of a TV monitor (having an 8-pin connector) by using the TV/VTR-monitor connection cable.

**⑪ Audio Output Sockets CH1 & CH 2 [AUDIO OUT]**
Audio signal line output.

**⑫ Video Output Socket [VIDEO OUT]**
This socket provides video output signal for use with a TV Monitor or another VTR.

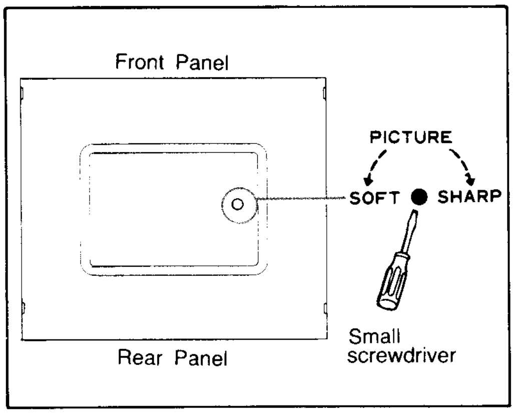
**⑬ Ground Terminal [GND]**
Connect to external ground, if audio hum or buzz is heard during playing back.

**⑭ AC Power Cord**
For connection to an AC electric outlet.

**⑮ Voltage Selector [VOLTAGE SELECT]**
This selector can be set for 110, 120, 220, 240 Volt operation.
If it is necessary to change the voltage, consult page 1-3.

**⑯ Picture Sharpness Control [PICTURE]**
Control the playback picture so that its outlines are made sharper or softer.

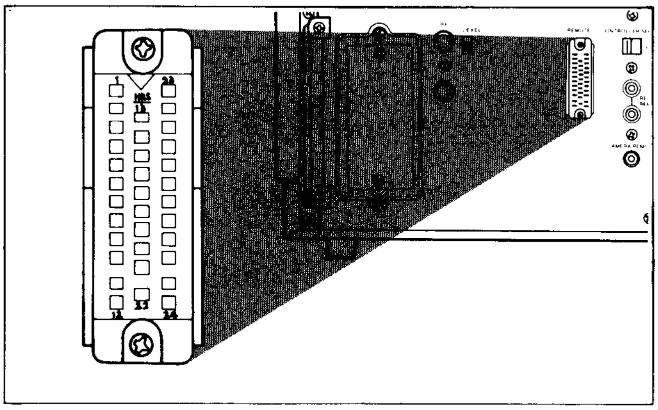
**Bottom View**



**⑰ RF Signal Level Switch [LEVEL]**
Used to attenuate the reception of the antenna signals.
If the reception is normal, set to "HIGH". If the signal is strong (the stripped pattern appears at the top of the picture on TV), set to "LOW".

# Interconnections

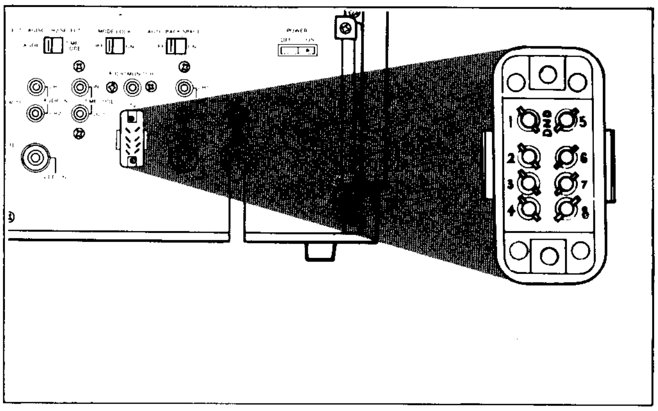
## Remote Socket



| Pin. No. | Contents | Pin No. | Contents |
|---|---|---|---|
| 1 | REC SWITCH* | 18 | CONTROL PULSE OUT |
| 2 | PLAY SWITCH | 19 | REMOTE 19 |
| 3 | FF SWITCH | 20 | START MARK |
| 4 | REW SWITCH | 21 | EJECT SWITCH |
| 5 | STOP SWITCH | 22 | |
| 6 | AUDIO DUB SWITCH | 23 | REC HOLD |
| 7 | PAUSE SWITCH | 24 | PLAY HOLD |
| 8 | CASSETTE IN | 25 | FF HOLD |
| 9 | AUDIO DUB SWITCH | 26 | REW HOLD |
| 10 | FF, REW SLOW DOWN | 27 | |
| 11 | | 28 | AUDIO DUB HOLD |
| 12 | GND | 29 | PAUSE HOLD |
| 13 | FRAME ADV. SWITCH | 30 | REMOTE 30 |
| 14 | REVERSE COUNT | 31 | AUDIO DUB HOLD |
| 15 | | 32 | |
| 16 | EDIT SWITCH | 33 | REMOTE 33 |
| 17 | REVERSE | 34 | +12 V |

***Note:** When the voltage on the pin is LOW, the unit will go into the REC mode.

## TV Monitor Socket



| Pin No. | Contents | Pin No. | Contents |
|---|---|---|---|
| 1 | AUDIO OUT | 5 | AUDIO OUT GND |
| 2 | VIDEO OUT | 6 | VIDEO OUT GND |
| 3 * | VIDEO IN GND | 7 * | AUDIO IN GND |
| 4 * | VIDEO IN | 8 * | AUDIO IN |

* **Note:** Not for AG-6100

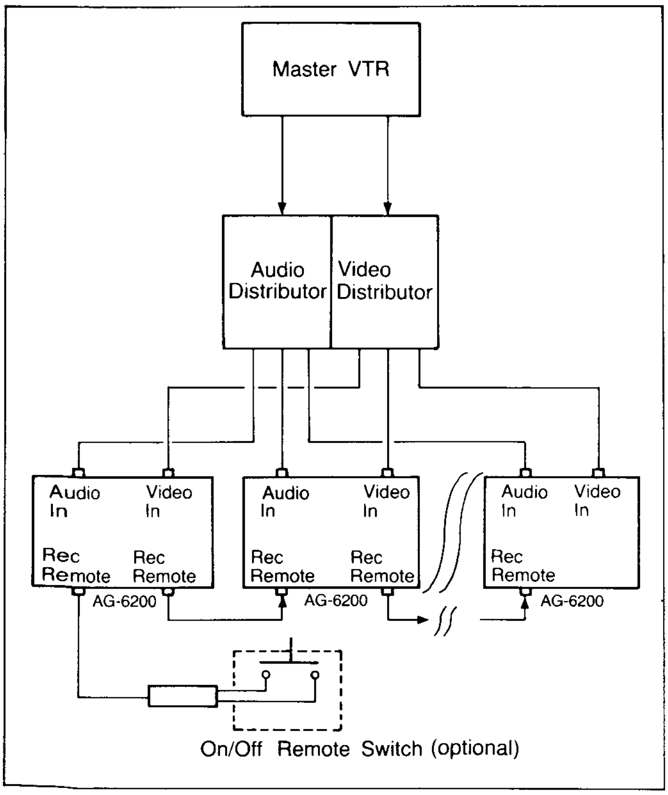
# Remote

## Camera Remote Socket (AG-6200)

When this is connected to a video camera which has a pause function, remote pause of VTR can be accomplished from the video camera.

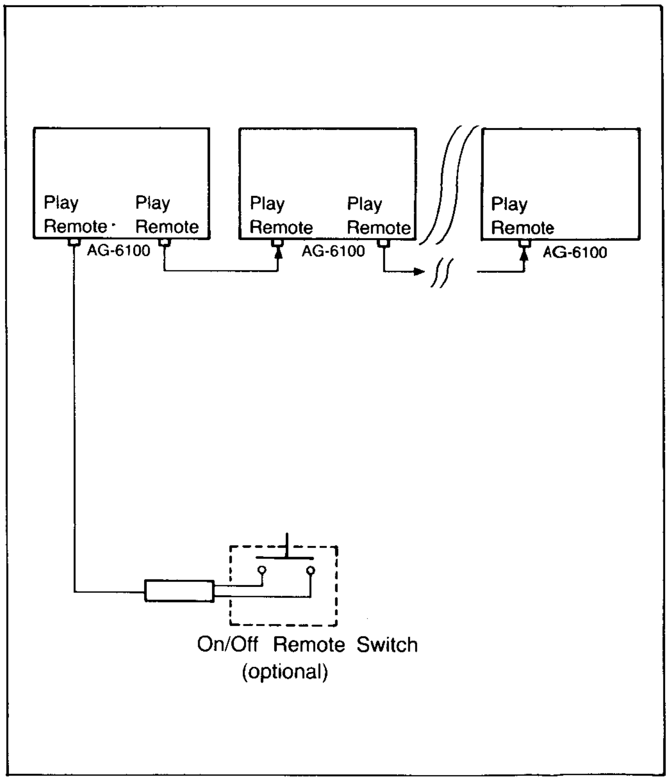
## Record Remote Socket (AG-6200)

This socket is used to dub or edit the master VTR's tape to two or more slave VTRs (Maximum 500 units) at the same time.

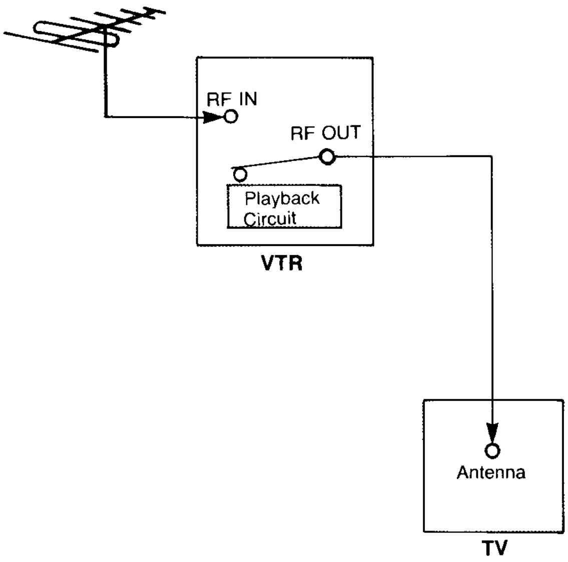

Master VTR
Audio Distributor
Video Distributor
Audio In
Video In
Rec Remote
Rec Remote
AG-6200
Audio In
Video In
Rec Remote
Rec Remote
AG-6200
Audio In
Video In
Rec Remote
AG-6200
On/Off Remote Switch (optional)

## Play Remote Socket (AG-6100)

This socket is used to control two or more slave VTRs (Maximum 500 units) at the same time.


Play Remote
Play Remote
AG-6100
Play Remote
Play Remote
AG-6100
Play Remote
AG-6100
On/Off Remote Switch (optional)

# RF Playback



## Playback through a Conventional TV Set

### ■ RF CONVERTER (Optional Accessory)

An RF converter (optional accessory) will allow you to playback VHS signals into your TV receiver. For this purpose those signals can be viewed through an unused broadcast channel.
If the playback picture shows a patterning interference effect, it may be that the RF converter playback channel requires careful adjustment.
Due to the delicate nature of this adjustment, it should be undertaken by your dealer.

**Note:**
Recording from RF IN is not possible.

**Models AG-6200/6100-E and B**

- The RF converter channel is preadjusted for your convenience to UHF approx. 36 Channel.

**Models AG-6200/6100-EN**

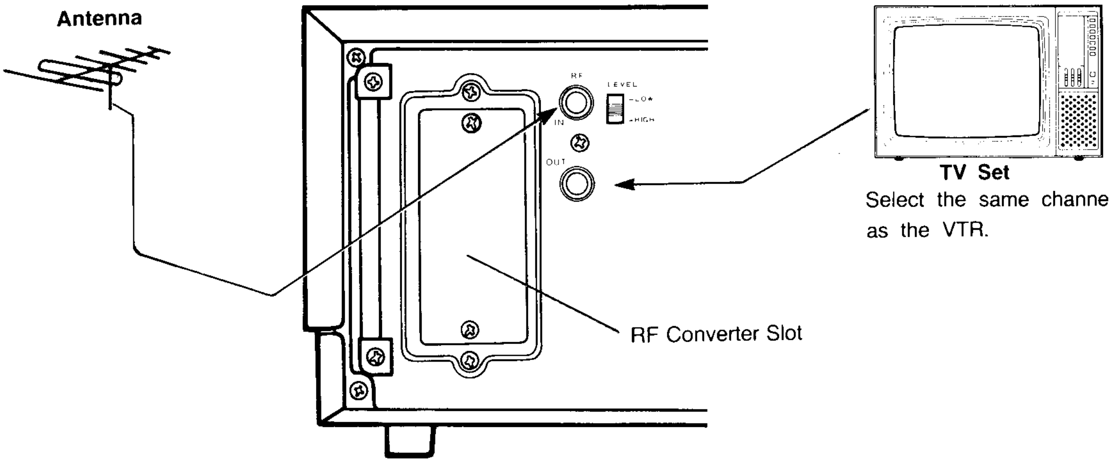
- The RF converter channel is preadjusted for your convenience to VHF Channel 3 (H).

**Models AG-6200/6100-A**

- The RF converter channel is preadjusted for your convenience to VHF Channel 1.

The parts numbers of RF converter, See page 1-3.

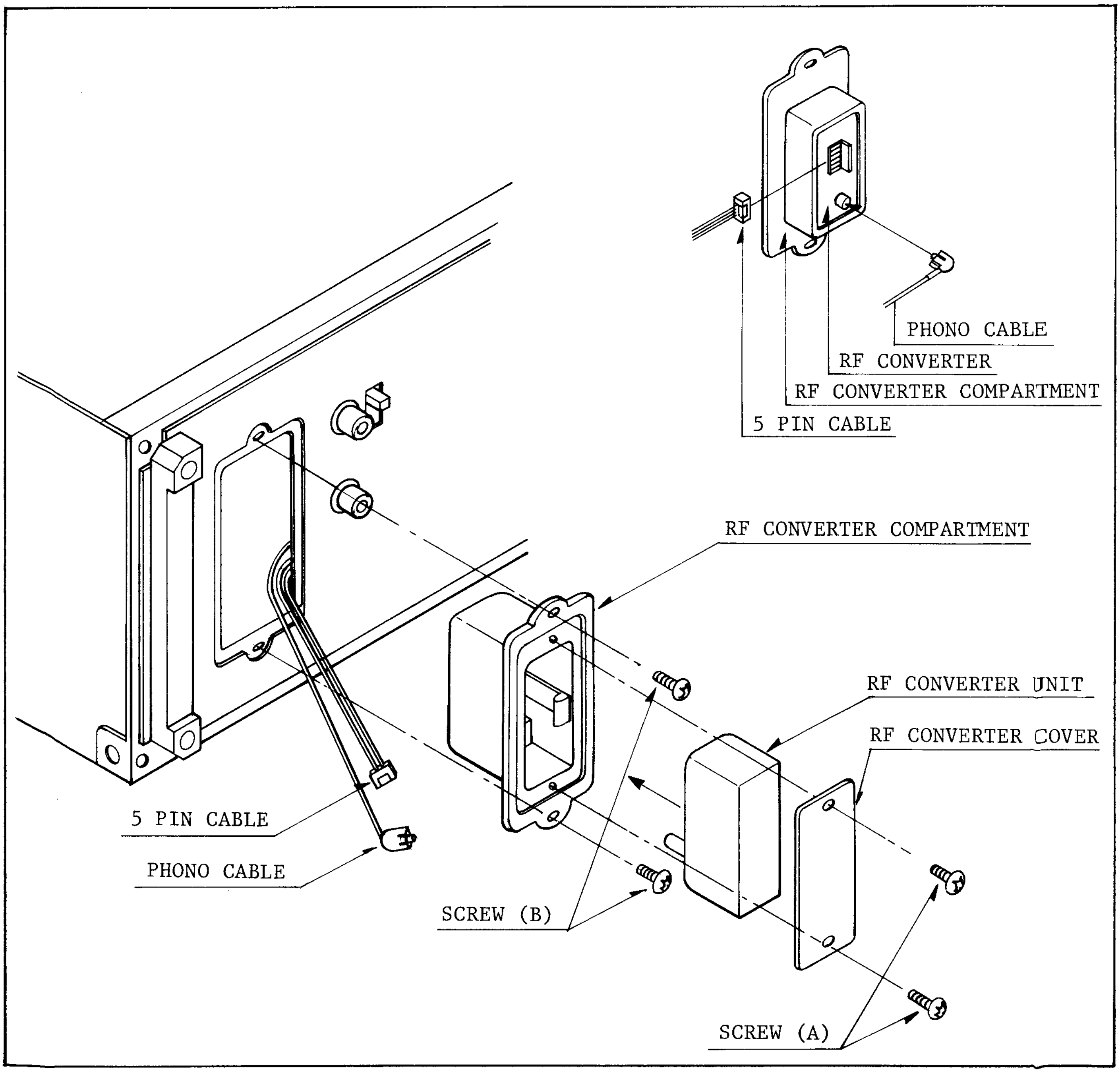
Confirm that the channel is not being used for TV braodcasts.Then set the TV channel to the same channel.



Select the same channel as the VTR.

Installation Method of the RF Converter

1. Unscrew the 2 screws (A) and lift the RF converter cover out.
2. Unscrew the 2 screws (B) and carefully pull the RF converter compartment with cables.
3. Install the RF converter unit to the RF converter compartment.
4. Connect the 5 pin cable and phono cable to the RF converter as shown below.
5. Reinstall the RF converter compartment with RF converter unit to the VTR and tighten the 2 screws (B).
6. Reinstall the RF converter cover on the RF converter compartment and tighten the 2 screws (A).


PHONO CABLE
RF CONVERTER
RF CONVERTER COMPARTMENT
5 PIN CABLE
RF CONVERTER COMPARTMENT
RF CONVERTER UNIT
RF CONVERTER COVER
5 PIN CABLE
PHONO CABLE
SCREW (B)
SCREW (A)

ORDER NO. VRD-8309-484

# Service Manual

**Vol. 2**

**Panasonic / National VHS**

Video Cassette Recorder

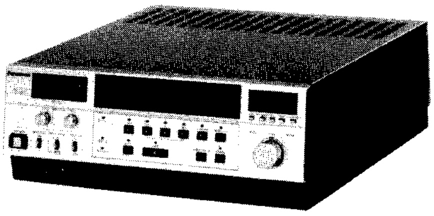
## AG-6200 -E -B -EN -A

Video Cassette Player

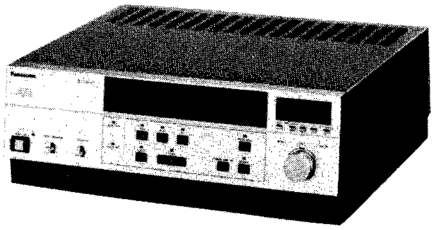
## AG-6100 -E -B -EN -A

## *Mechanical Adjustment Procedures*

## *Electrical Adjustment Procedures*



**AG-6200**



**AG-6100**

### AG-6200-E/B/EN/A

### SPECIFICATIONS

Power Source: 110/120/220/240 V AC, 60/50 Hz
Power Consumption: Approx. 60 watts
Television System: CCIR (625 lines, 50 fields)
PAL colour signal
EIA (525 Lines, 60 fields) 4.43 MHz
modified NTSC colour signal
Video Recording System: 2 rotary heads, helical scanning system
Luminance: FM azimuth recording
Colour signal: converted subcarrier phase shift recording
Audio Track: 2 tracks
Tape Format: Tape width 12.7 mm, high density tape
Tape Speed: 23.39 mm/sec. (PAL)
33.35 mm/sec. (modified NTSC)
Record/Playback Time: 180 mim. with NV-E180 (PAL)
Playback Time: 120 min. with NV-T120 (modified NTSC)
FF/REW Time: Less than 4.5 min. with NV-E180
Heads: Video: 4 rotary heads
Audio/Control: 1 stationary head
Erase: 1 full track erase
1 audio track erase for audio dubbing
Input Level: Video: TV Monitor connector (8 pins)
1.0 Vp-p, 75Ω unbalanced
VIDEO IN connector (BNC)
1.0 Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
−20 dB, 47 kΩ unbalanced
MIC IN jack × 2
−73 dB, 4.7 kΩ unbalanced
LINE IN jack (Phono) × 2
−20 dB, 47 kΩ unbalanced
Time code: (Phono)
1.0 Vp-p, 10 kΩ unbalanced
Output Level: Video: TV Monitor connector (8 pins)
1.0 Vp-p, 75Ω unbalanced
VIDEO OUT connector (BNC)
1.0 Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
0 dB, 600Ω unbalanced
LINE OUT jack (Phono) × 2
−6 dB, 600Ω unbalanced
AUDIO MONITOR OUT jack (Phono) 0 dB, 600Ω unbalanced
HEADPHONES jack
−20 dB ~ −60 dB, 8Ω
Time Code: (Phono)
2.4 Vp-p, low impedance unbalanced
RF Modulated: Channel 0 or 1, 76 ± 3 dBμ (open voltage), 75Ω unbalanced (AG-6200-A)
Video Horizontal Resolution: Colour: more than 240 lines
(on monoscope test pattern) B/W: more than 300 lines
Audio Frequency Response: 50 ~ 10,000 Hz
Signal-to-Noise Ratio: Video: B/W: better than 43 dB
Colour: better than 43 dB
(Rohde & Schwarz noise meter)
Audio: better than 50 dB
(Dolby NR IN)

(continued on Next Page.)

**Panasonic / National**

**Matsushita Electric Trading Co., Ltd.**
P.O. Box 288, Central Osaka Japan

(continued from Cover Page.)

| | |
|---|---|
| Operating Temperature: | 5°C ~ 40°C |
| Operating Humidity: | 35% ~ 80% |
| Weight: | 13.0kg |
| Dimensions: | 430(W) × 392(D) × 158(H)mm |
| Accessories Supplied: | 1 pc. Dust cover<br>1 pc. Fan Bag.<br>1 pc. DIN-DIN Cable (AG-6200-A) |
| Optional Accessories: (Parts) | RF Converter Unit<br>ENC17571 (Europe)<br>ENC17572 (England)<br>ENC17506 (Asia)<br>Remote Controller AG-A600-E/EN<br>Rack-Mounting Frame AG-M600 |

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

# AG-6100-E/B/EN/A

## SPECIFICATIONS

| | |
|---|---|
| Power Source: | 110, 120, 220, 240V AC, 60/50Hz |
| Power Consumption: | Approx. 58 watts |
| Television System: | CCIR (625 lines, 50 fields)<br>PAL colour signal<br>EIA (525 lines, 60 fields) 4.43MHz<br>modified NTSC colour signal |
| Video Playback System: | Helical scanning system |
| Recorded Video Signal: | Luminance: FM azimuth recording<br>Colour signal: converted subcarrier phase shift recording |
| Audio Track: | 2 tracks |
| Tape Format: | Tape width 12.7mm, high density tape |
| Tape Speed: | 23.39mm/sec. (PAL)<br>33.35mm/sec. (modified NTSC) |
| Playback Time: | 180min. with NV-E180 (PAL)<br>120min. with NV-T120 (modified NTSC) |
| FF/REW Time: | Less than 4.5min. with NV-E180 |
| Heads: | Video: 4 rotary heads<br>Audio/Control: 1 stationary head |
| Output Level: | Video: TV Monitor connector (8 pins)<br>1.0Vp-p, 75Ω unbalanced<br>VIDEO OUT connector (BNC)<br>1.0Vp-p, 75Ω unbalanced<br>Audio: TV Monitor connector (8 pins)<br>0dB, 600Ω unbalanced<br>LINE OUT jack (Phono) × 2<br>−6dB, 600Ω unbalanced<br>AUDIO MONITOR OUT jack<br>(Phono) 0dB, 600Ω unbalanced<br>HEADPHONES jack<br>−20dB ~ −60dB, 8Ω<br>RF Modulated: Channel 0 or 1,<br>76 ± 3dBμ (open voltage),<br>75Ω unbalanced<br>(AG-6100-A) |
| Video Horizontal Resolution: (on monoscope test pattern) | Colour: more than 240 lines<br>B/W: more than 300 lines |
| Audio Frequency Response: | 50 ~ 10,000Hz |
| Signal-to-Noise Ratio: | Video: B/W: better than 43dB<br>Colour: better than 43dB<br>(Rohde & Schwarz noise meter)<br>Audio: better than 50dB<br>(Dolby NR IN) |
| Operating Temperature: | 5°C ~ 40°C |
| Operating Humidity: | 35% ~ 80% |
| Weight: | 12.6kg |
| Dimensions: | 430(W) × 392(D) × 158(H)mm |
| Accessories Supplied: | 1 pc. Dust cover<br>1 pc. Fan Bag<br>1 pc. DIN-DIN Cable (AG-6100-A) |
| Optional Accessories: (Parts) | RF Converter Unit<br>ENC17571 (Europe)<br>ENC17572 (England)<br>ENC17506 (Asia)<br>Remote Controller AG-A600-E/EN<br>Rack-Mounting Frame AG-M600 |

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

### * FOR SECAM CAUTIONS:

1) In some areas, SECAM colour broadcasts can be recorded on the AG-6200, but such cassettes are not interchangeable with cassettes recorded on other PAL-VHS or FRENCH SECAM-VHS sets.
2) When cassettes recorded on the AG-6200 are played back on the FRENCH SECAM-VHS set, the playback is in black and white. Also, cassettes recorded on the FRENCH SECAM-VHS set, or FRENCH SECAM prerecorded cassettes may be played back in black and white on the AG-6200 and AG-6100.

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# AG-6200/AG-6100 Mechanical Maintenance Chart

We recommend that the following periodic checks be performed to prolong the life of the machine.
Since the parts are keyed to the Inner parts Location Diagram.
When you replace the following parts, refer to the diagram.

◎ Replacement
● Cleaning
△ Lubrication

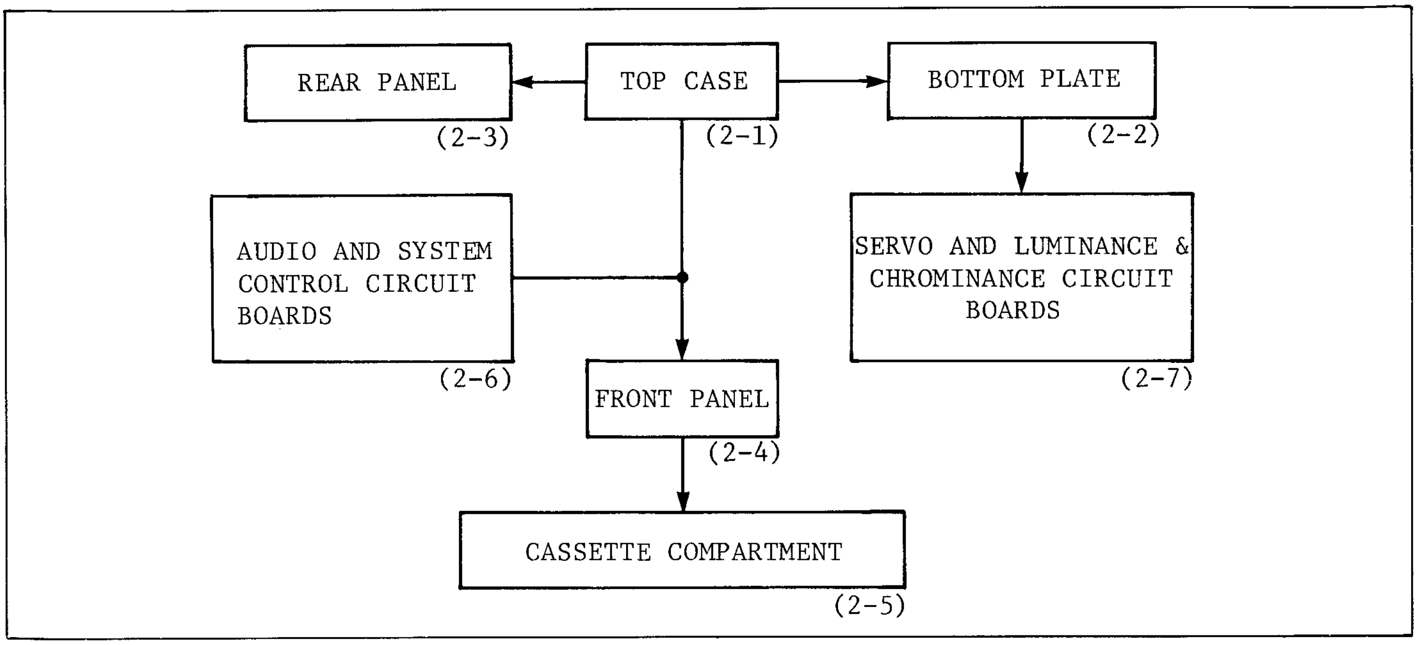
| | Parts Name & Ass'y No. | HOUR | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 |
| 1. | Upper Cylinder Unit (VEH0225) | ● | ◎ | ● | ◎ | ● | ◎ | ● | ◎ | ● | ◎ |
| 2. | Cylinder Unit (VEG0300) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 3. | A/C Head (VBR0069) | ● | ● | ● | ● | ● | ● | ● | ◎ | ● | ● |
| 4. | Erase Head (VBS0024) | ● | ● | ● | ● | ● | ● | ● | ◎ | ● | ● |
| 5. | Capstan Shaft | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 6. | Pressure Roller (VXL1034) | ● | ● | ● | ● | ● | ● | ● | ◎ | ● | ● |
| 7. | Reel Motor (KFN56FB8A) | | | | ◎ | | | | ◎ | | |
| 8. | Kick Pulley Belt (VDV0138) | | | | ◎ | | | | ◎ | | |
| 9. | Supply Reel Table (VXR0109) | | | | △ | | | | △ | | |
| 10. | Takeup Reel Table (VXR0117) | | | | △ | | | | △ | | |
| 11. | Loading Motor Unit (VEM0135) | | | | | | | | ◎ | | |
| 12. | Front Loading Motor (MXN12AE10C) | | | | | | | | ◎ | | |
| 13. | Loading Belt (1) (VDV0122) | | | | ◎ | | | | ◎ | | |
| 14. | Loading Belt (2) (VDV0135) | | | | ◎ | | | | ◎ | | |
| 15. | Front Loading Belt (VDV0144) | | | | ◎ | | | | ◎ | | |
| 16. | Slip Brush (VXA1584) | | | | ◎ | | | | ◎ | | |
| 17. | Capstan Motor Unit (VEM0164) | | △ | | △ | | △ | | △ | | △ |
| 18. | Tape Transporters | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

Note: Erase Head (VBS0024) is used in AG-6200 only.

# MECHANICAL ADJUSTMENT PROCEDURES

## 1. DISASSEMBLY OF CABINET PARTS

### 1-1. DISASSEMBLY FLOWCHART (Fig. D1)



REAR PANEL
(2-3)
TOP CASE
(2-1)
BOTTOM PLATE
(2-2)
AUDIO AND SYSTEM CONTROL CIRCUIT BOARDS
(2-6)
SERVO AND LUMINANCE & CHROMINANCE CIRCUIT BOARDS
(2-7)
FRONT PANEL
(2-4)
CASSETTE COMPARTMENT
(2-5)

Fig. D1

This flow chart describes the order of steps for removing the cabinet parts and certain printed circuit boards in order to gain access to the items needing servicing. To reassemble the unit, follow the steps in reverse order.

### 1-2. DETAILED DISASSEMBLY METHOD

### 1-2-1. Removal of the Top Case

1. Unscrew the 4 screws (A) in the side panel of the Top Case. (Fig. D2)
2. Carefully lift the rear of the case and slide it off the back of the unit.

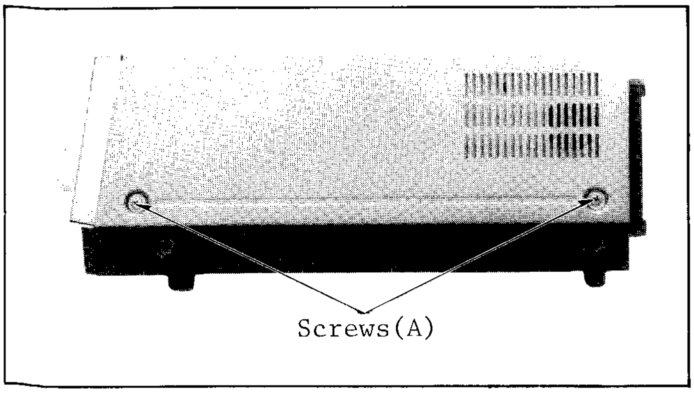


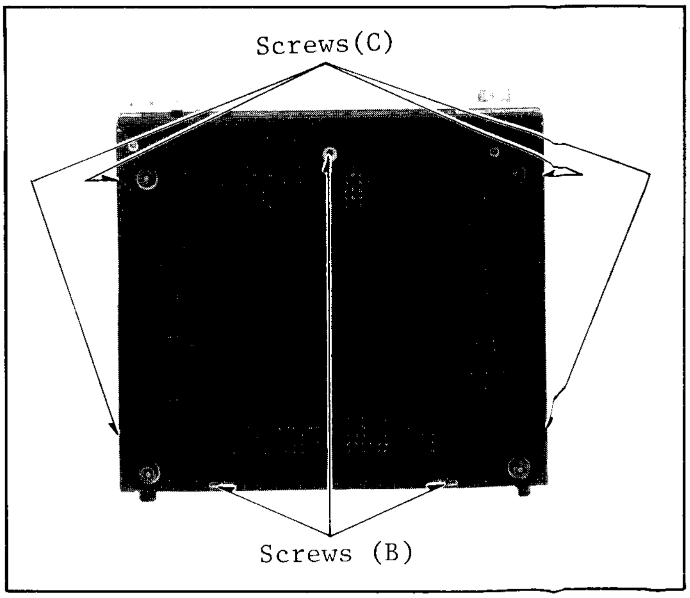
Fig. D2

### 1-2-2. Removal of the Bottom Plate

1. Unscrew the 3 screws (B) with saw-tooth washer.
2. Unscrew the 4 screws (C) in the side panel of the Bottom plate.
3. Lift of the Bottom Plate.

Note:

Do not remove the 4 rubber feet from the Bottom Plate.



Screws(C)
Screws (B)

Fig. D3

## 1-2-3. Removal of the Rear Panel

1. Unscrew the 4 screws (D) in the corners of the rear panel and remove the Rear Panel.
2. Unscrew the 2 screws (E) in the side panel of the Rear panel.

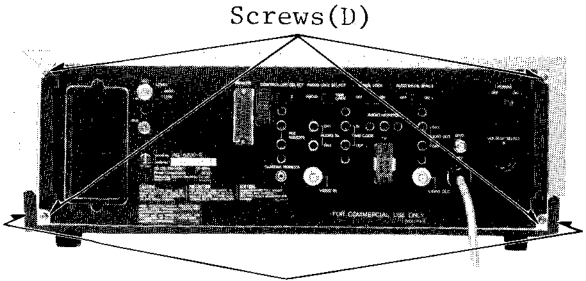


Fig. D4

## 1-2-4. Removal of the Front Panel.

1. Unscrew the 4 screws (F) (Fig. D5)
2. Lift the Front Panel and carefully pull the panel off the unit.

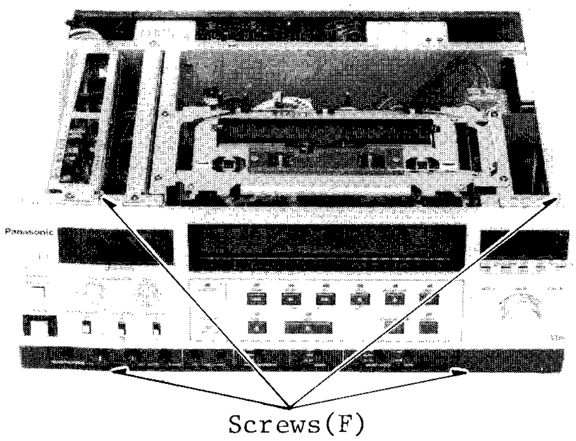


Fig. D5

## 1-2-5. Removal of the cassette Compartment

1. Unscrew the 4 screws (G) from the Cassette Compartment. (Fig. D6)
2. Carefully lift the Cassette Compartment out.

Note:
Do not disconnect connectors P6751 and P6752.

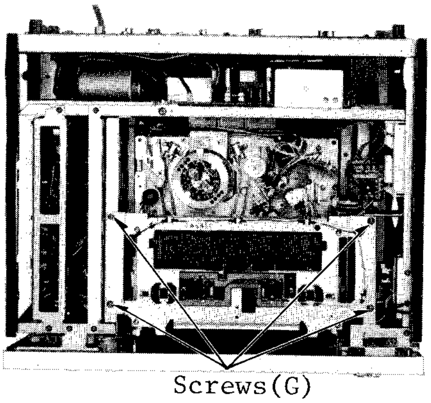


Fig. D6

## 1-2-6. Opening of Side Circuit Boards. (Audio Circuit Board and System Control Circuit Board)

* Opening of the Audio Circuit board.

1. Unscrew the 2 screws (H) from the circuit board. (Fig. D7)
2. Pull the circuit board out from the unit.

* Opening of the System Control Circuit board

1. Unscrew the 2 screws (I) from the circuit board. (Fig. D7)
2. Lift the circuit board out from the unit.

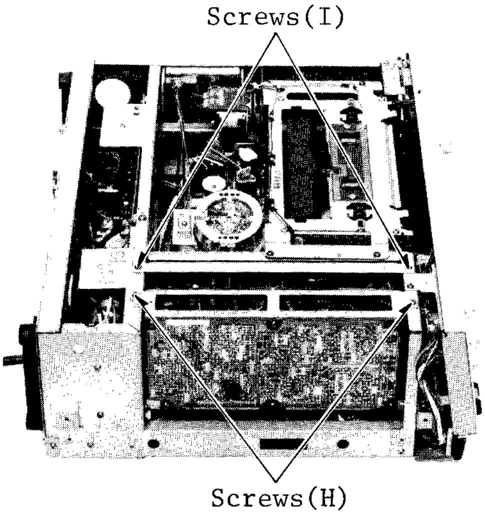


Fig. D7

### 1-2-7. Opening of the Bottom Circuit Boards. (Servo circuit board and Luminance & Chrominance circuit board.)

1. Unscrew the 6 screws (J) from the Bottom Circuit Board. (Fig. D8)
2. Open up the Bottom Circuit Board.

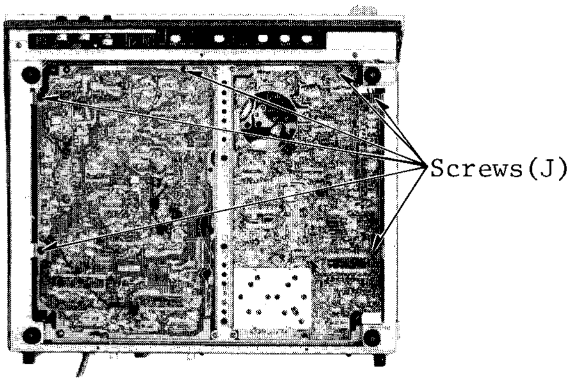


Fig. D8

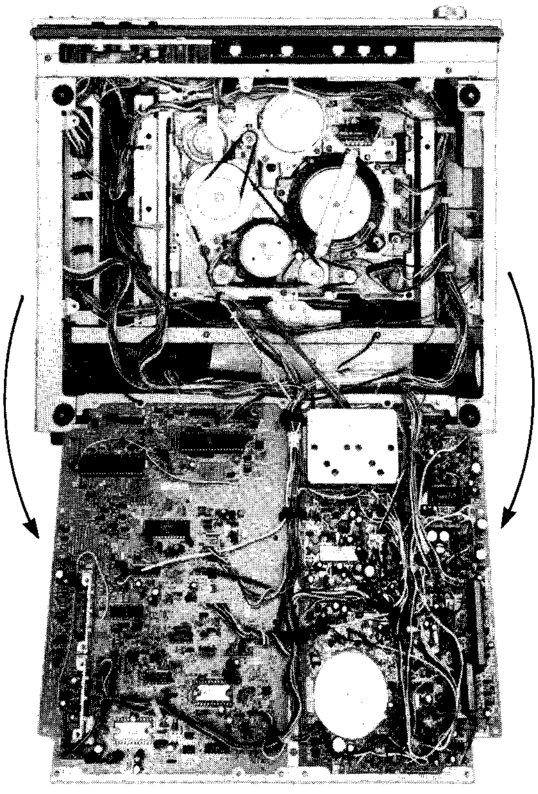


Fig. D9

## 2. MECHANICAL MAINTENANCE PROCEDURES

### 2-1. REPLACEMENT OF THE UPPER CYLINDER UNIT

Work with extreme care when removing or replacing the upper cylinder unit. Do not touch video heads during servicing. Be sure the AC Power Cord is disconnected before starting the procedure.

1. Remove the Top Case and Cassette Compartment. Refer to "DISASSEMBLY METHOD" section.
2. Remove the screw (A) and Discharge Brush Unit. And unsolder the 8 leads, which are color coded to match leads on the head relay board.
3. Remove the 2 screws (B) and gently lift the upper cylinder unit from the shaft.
4. Before reinstalling a new one, clean the DD cylinder shaft and surface engaged with it on the upper cylinder with soft cloth dampened with freon liquid.
5. Reinstall the new one so the colour code of 8 leads match leads on the head relay board and tighten the 2 screws (B).
6. Resolder the 8 leads to head relay board and reinstall the Discharge Brush Unit.

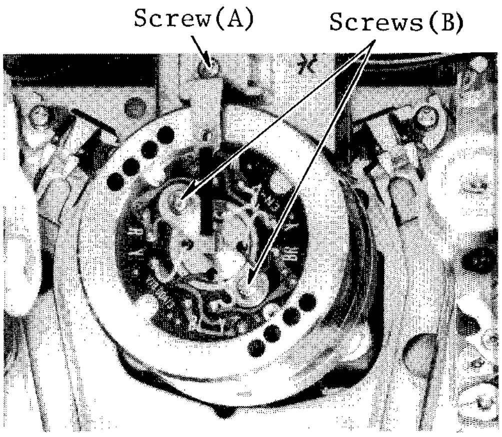


Fig. M1

Note:

Upon completion of replacement, confirm the performance. And if any further maintenance is required, refer to the "TAPE INTERCHANGEABILITY ADJUSTMENT" section and perform the necessary items.

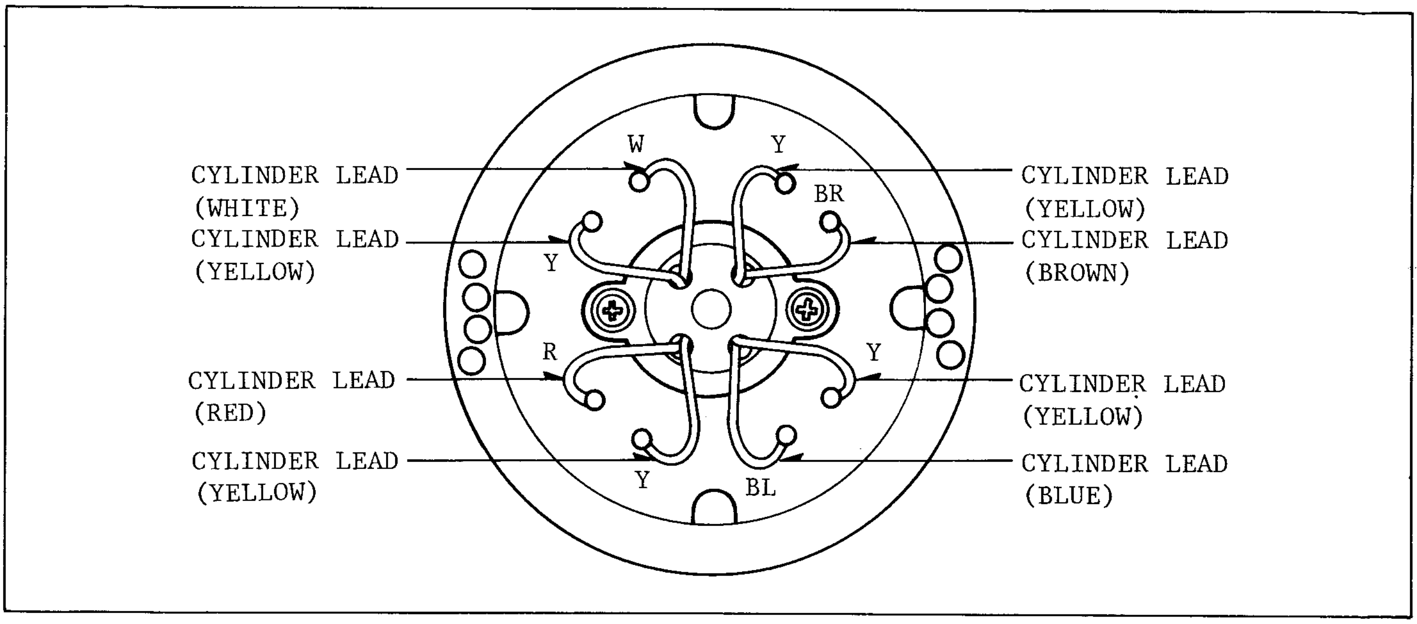

CYLINDER LEAD
(WHITE)
CYLINDER LEAD
(YELLOW)
CYLINDER LEAD
(RED)
CYLINDER LEAD
(YELLOW)
W
Y
BR
Y
R
Y
Y
BL
CYLINDER LEAD
(YELLOW)
CYLINDER LEAD
(BROWN)
CYLINDER LEAD
(YELLOW)
CYLINDER LEAD
(BLUE)

Fig. M2

### 2-2. REPLACEMENT OF THE DD CYLINDER UNIT

Work with extreme care when removing or replacing the DD cylider unit. Do not touch video heads during servicing.

1. Remove the Top Case, Cassette Compartment, Bottom Case and open up the Bottom Circuit Boards. Refer to "DISASSEMBLY METHOD" section.
2. Disconnect the connector P001 and unscrew the 3 screws (A). Since there is very little clearance between DD cylinder and chassis, remove the cylinder gently and carefully.

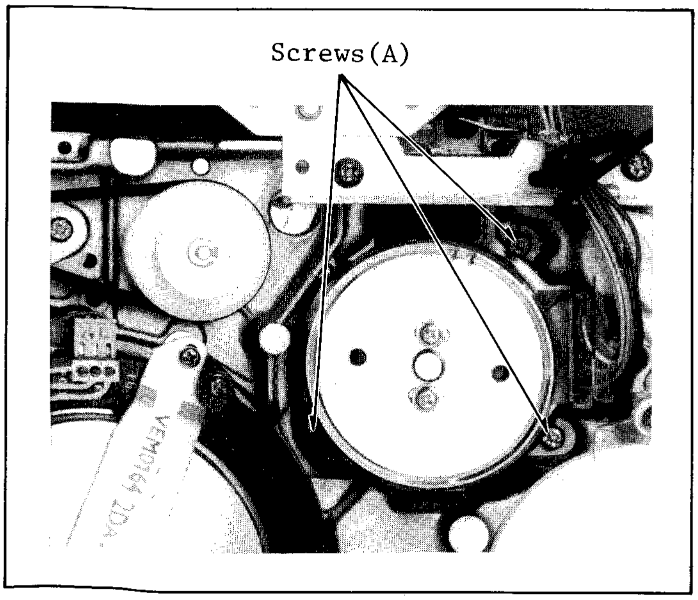


Fig. M3

3. Remove the upper cylinder unit from the DD cylinder and reinstall it on new one. To perform this step, refer to "REPLACEMENT OF UPPER CYLINDER UNIT" section.
4. Reinstall the new DD cylinder unit to the chassis and reconnect the connector P001.

Note:

Upon completion of replacement, confirm the performance. And if any further maintenance is required, refer to the "TAPE INTERCHANGEABILITY ADJUSTMENT" section and perform the necessary items.

## 3. ADJUSTMENT PROCEDURES

### 3-1. ADJUSTMENT OF THE SAFETY SWITCH

* Specification
The switch should close when a cassette with an erase tab is inserted, and should open when a cassette without an erase tab is inserted.

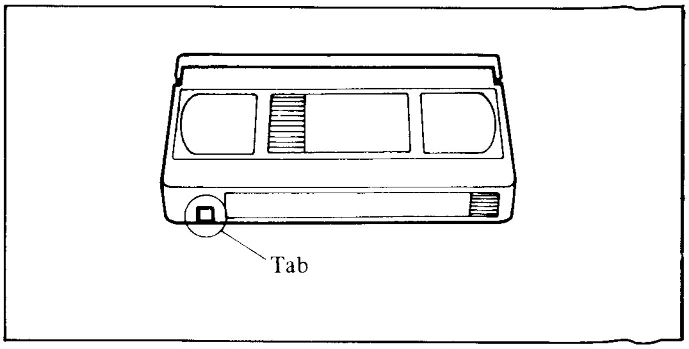


Fig. M4

* Equipment Required:
Cassette Holder Fixture .... VFK0188

1. Remove the Top Case, and cassette Compartment.
2. Place the fixture just slightly loosen 3 screws (A) by about half turn.
3. Turn the switch base counter clockwise and then slowly turn clockwise until the switch turn on.
4. Tighten 3 screws.

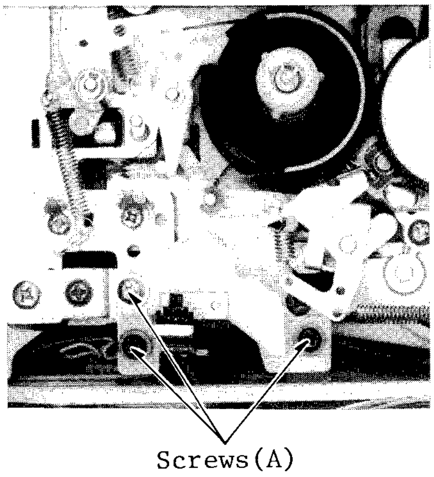


Fig. M5

### 3-2. CONFIRMATION OF PRESSING FORCE AND POSITION ADJUSTMENT OF PRESSURE ROLLER

* Equipment Required:
Fan-Type Tension Gauge (VFK66)

1. Remove the Cassette Compartment.
2. Playback the cassette tape.
3. Set Fan-Type Tension Gauge to the part (A) of Main Pressure Arm Unit.

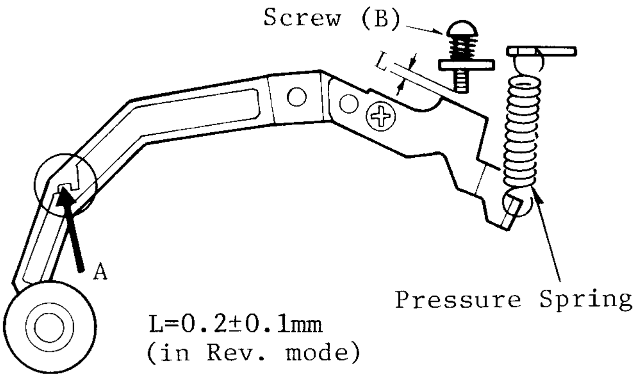


Fig. M6

4. Press the Arm with the Gauge, in the direction indicated by the arrow as shown in Fig. M6.
5. Confirm that reading of the Tension Gauge is 1,600 ± 350 g at the moment of tape stop.
6. If it is out of spec, replace the pressure spring.
7. Place the deck in REV mode.
8. Turn screw (B) clockwise or counterclockwise by the pliers, so that the clearance (L) becomes 0.2 ± 0.1mm.

### 3-3. POSITION ADJUSTMENT OF TENSION POST

* Equipment Required:
Tension Post Adjustment Plate
................ VFK0187
Fine Adjustment Screwdriver
............... VFK0136

1. Remove the Top Case, Cassette Compartment and Bottom plate, and open up the Bottom Circuit Boards.
2. Viewing from the bottom side, slowly turn the Large Pulley counterclockwise by hand until the unit is in the play mode position (Fig. M7)

Note:
Do not use excessive force to turn the pulley.

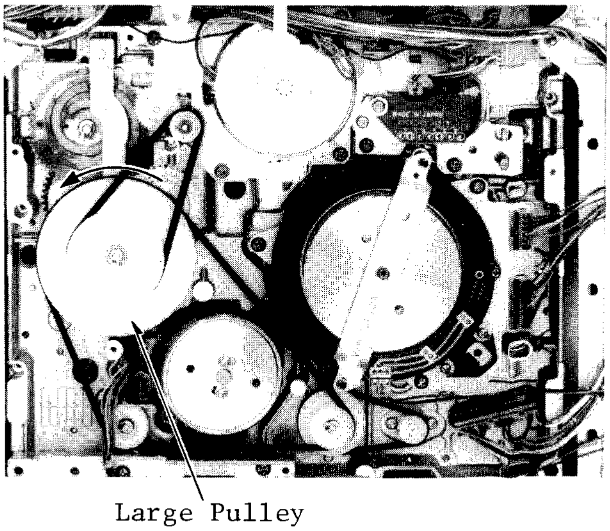


Fig. M7

3. Place the Tension Post Adjustment Plate (VFK0187) on the Reel Tables.
4. Slightly loosen the screw (A) securing the Tension Band Bracket. (Fig. M8).
5. Insert the Fine Adjustment Screwdriver into the adjustment hole (B) next to the screw and adjust the Tension Band Bracket so that the Tension Post just touches the Tension Post Adjustment Plate (Fig. M8)

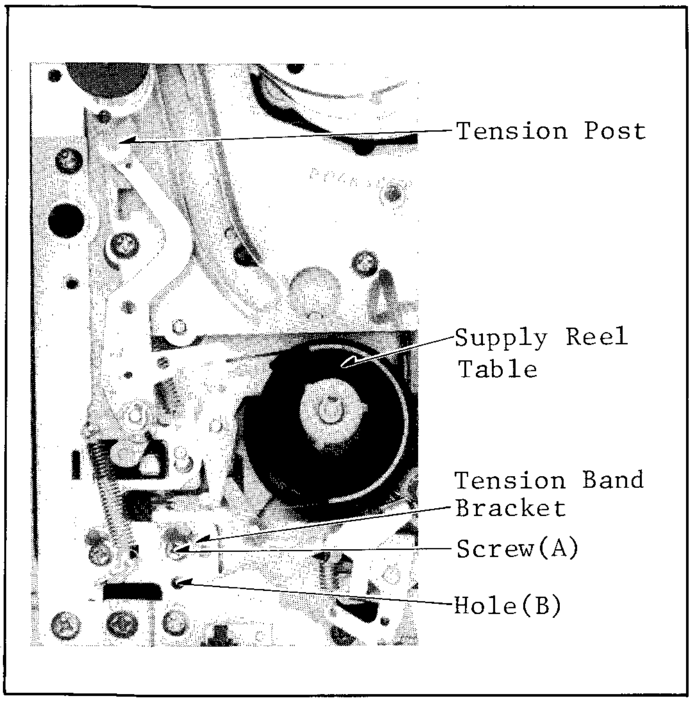


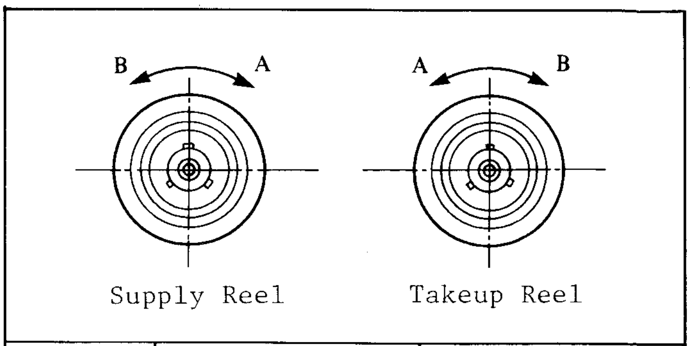
Fig. M8

## 3-4. CONFIRMATION/ADJUSTMENT OF THE BRAKE TORQUE

A. Confirmation Procedure

* Equipment Required:
Torque Gauge ............... VFK0133
Adaptor for Gauge .......... VFK0134

1. Remove the top case and the cassette compartment.
2. Attach the adaptor to the torque gauge and place the deck in STOP mode.
3. Place the torque gauge on the reel table.
   The weight of the gauge should not rest on the reel table.
4. Turn the torque gauge in the direction indicated in Fig. M9 until the brake begins slipping and read the gauge.



| | A | B |
|---|---|---|
| Takeup | 450 ∿ 800 g-cm | 70 ∿ 150 g-cm |
| Supply | | |

Fig. M9. Brake Torque Spec.

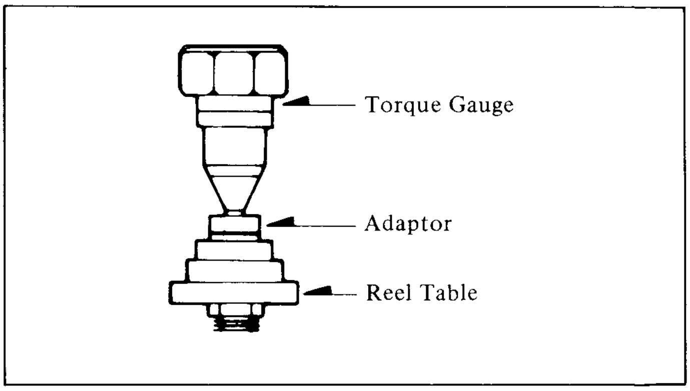


Fig. M10. Measuring Method

Adjustment Procedure

To adjust the brake torque, move the spring to a different notch on the brake arm. Increase the brake torque by moving the spring to an outer notch and decrease the brake torque by moving the spring to an inner notch.

Note:

> If the proper brake torque cannot be obtained by changing the position of the spring, clean the braking surface of the reel table with a soft cloth and remeasure the brake torque. If it is still out of specification, replace the Brake Arm Unit.

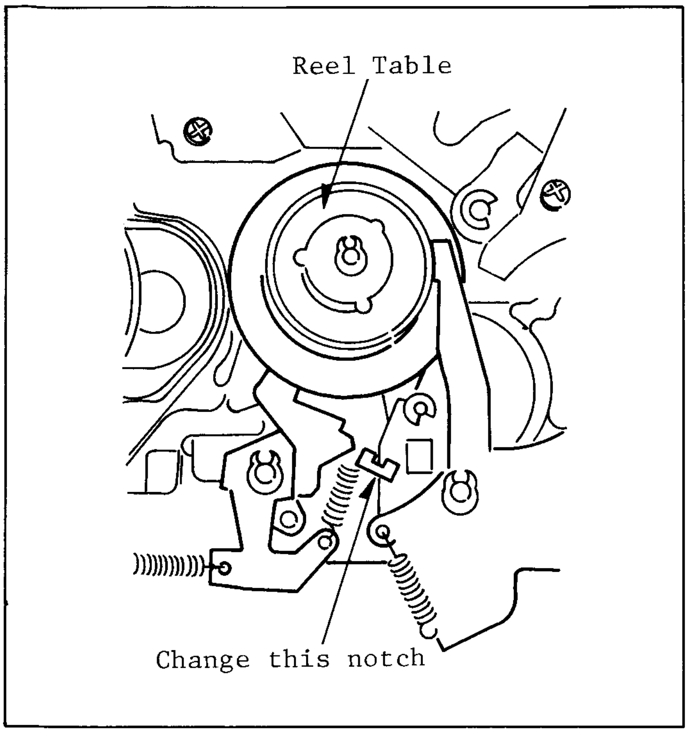


Fig. M11. Adjustment of Brake Torque

## 3-5. CONFIRMATION OF TAKEUP TORQUE

* Equipment Required:
Dial Torque Gauge .......... VFK0133
Adaptor for Gauge .......... VFK0134

* Specification:
in FF Mode ......... more than 400g-cm
in REW Mode ........ more than 400g-cm

1. Remove the top case and the cassette compartment
2. Attach the adaptor to the torque gauge and blind the takeup and supply photo transistors with pieces of black tape.
   Lower the cassette compartment and turn the power switch on.
3. Set a torque gauge to the Takeup Reel Table, push the FF button and read torque on gauge.

Note:
While measuring, the weight of the gauge should not rest on the reel table.

4. Set the torque gauge to the Supply Reel Table, Push the rewind button for rewind mode. And read the torque on gauge.

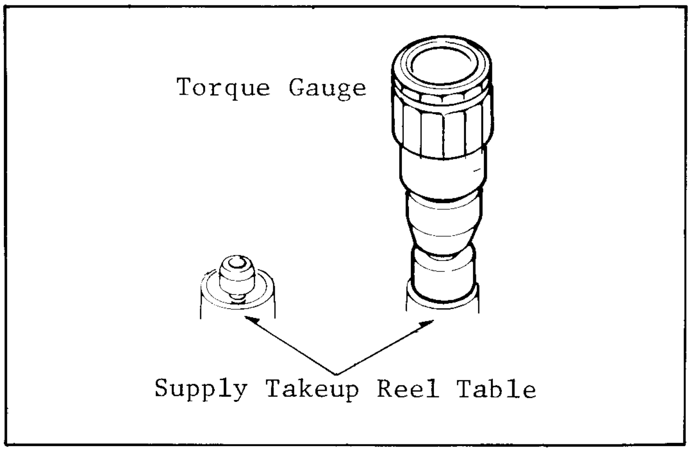


Fig. M12. Measuring Method

5. Remove the black tape from the takeup and supply photo transistors.

Note:
There are no-adjustment here.
If the torque readings are off considerably, rollers or idlers or reel tables may need replacement.

## 3-6. MEASUREMENT AND ADJUSTMENT OF THE BACK TENSION

A. Measurement Procedure

* Equipment Required:
Back Tension Meter (Tentelometer,
Model T2-H7-UM)
VHS Cassette Tape (180-minute tape)

* Specification .............. 25 ∿ 30g

1. Remove the top case and the cassette compartment.
2. Pull the erase head in the direction indicated by the arrow in Fig. M13 secure it with a piece of adhesive tape.
3. Play back the cassette tape from the beginning and wait until the tape movement has stabilized.
(for approx. 10 to 20 seconds)
4. Insert tension meter over the tape and take a reading.

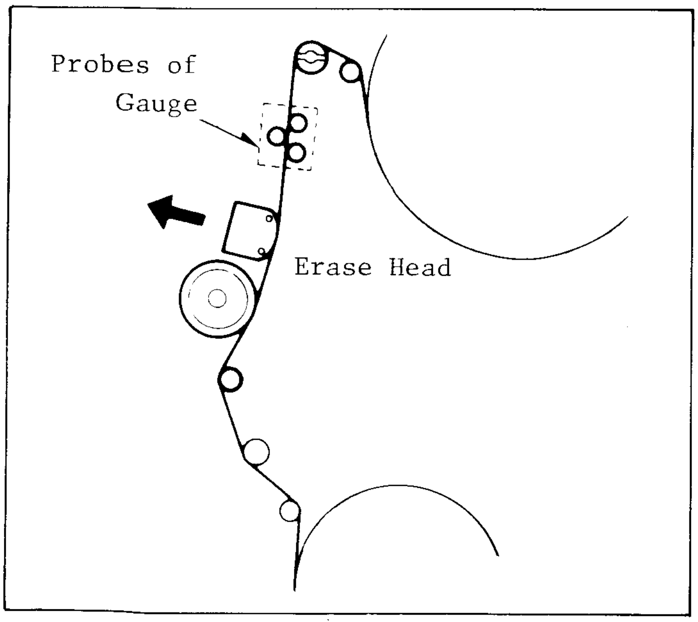


Fig. M13 Measurement of Back tension

Note:

1. While measuring, make sure that the three probes of the meter are all in good contact with the tape, but out of contact with the supply inertia roller.
2. As the tension meter is very sensitive, we recommended taking 3 separate rendings.

B. Adjustment Procedure

* Equipment Required:
Fine Adjustment
Screwdriver ................ VFK0136

1. Remove the top case and the cassette compartment.
2. Loosen the screw (A) and insert the fine adjustment screwdriver into the hole (B).
3. Move the adjustment plate in either of the directions indicated by the arrow in Fig. M14 to obtain the specified tension. Turn the driver clockwise to decrease the tension, counter-clockwise to increase it.
4. Tighten the screw (A) and remeasure the tension with the meter to confirm it.

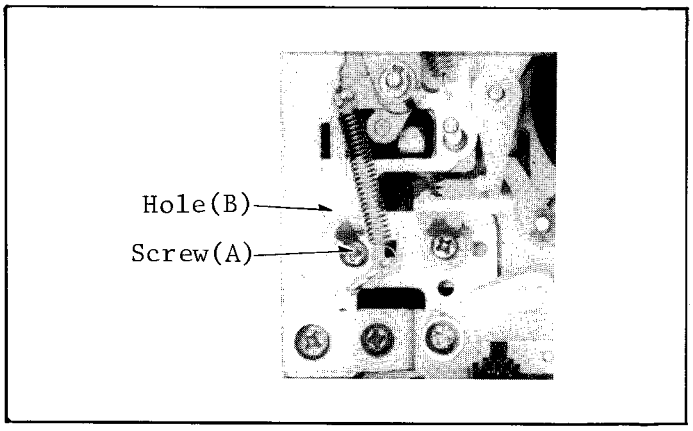


Fig. M14

## 3-7. ADJUSTMENT OF THE REEL TABLE HEIGHTS

* Equipment Required:
Post Adjustment Plate ...... VFK0138
Reel Table Height Gauge .... VFK0139

* Specification:
0.1mm ± 0.1mm

1. Remove the Cassette Compartment.
2. Place the Post Adjustment Plate over the reel tables.
3. Place the Reel Table Height Gauge on the plate so that the scraper on the gauge touches the cut-out portion of the plate, then set the gauge to zero ("0").

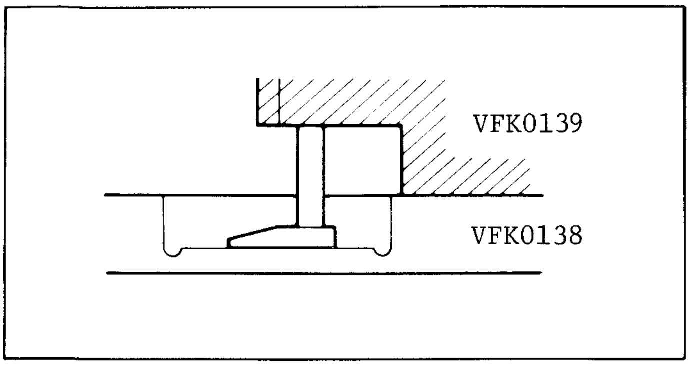


Fig. M15

4. Measure the height of the top surface of either reel table and note the difference in height from the plate cut-out.
   Repeat this procedures for the other reel table.
5. If the difference is more than 0.1mm higher or lower, replace the poly slider washer located under the reel table with one of the appropriate thickness.
   Poly slider washers are available in thickness of 0.13mm, 0.25mm and 0.5mm.

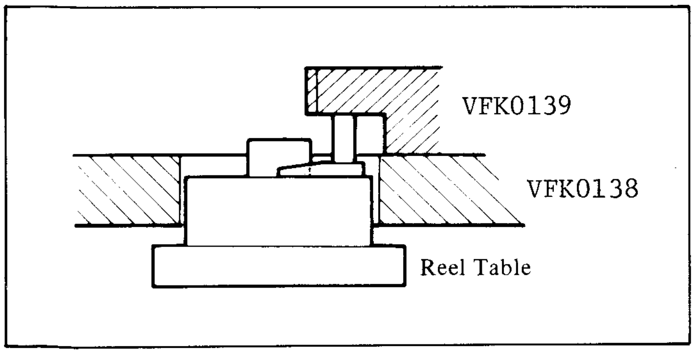


Fig. M16

## 3-8. ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS

* Equipment Required:

| | |
|---|---|
| 0.9mm Hex Wrench | VFK0146 |
| Post Adjustment Plate | VFK0138 |
| Reel Table Height Gauge | VFK0139 |
| Nut Driver (purchase locally) | |
| Post Adjustment Screwdriver | VFK0137 |

1. Remove the Cassette Compartment.
2. Place the Post Adjustment Plate over the reel tables.

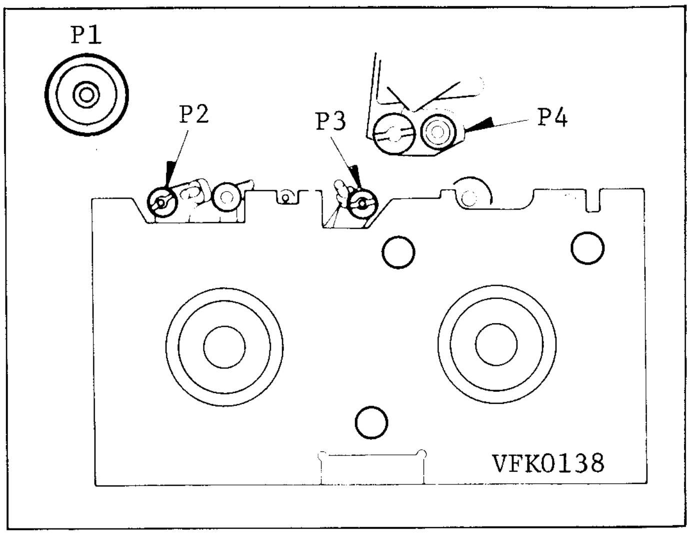


Fig. M17

3. Loosen the hex screw located under the lower tape guide on posts P2 and P3, and remove the post cap on post P4 by turning it counter-clockwise.
4. Lower all four tape guide posts so that the lower tape guide on each post is below the top surface of the adjustment plate.
   Use the Post Adjustment screwdriver to lower posts P2 and P3, and the Nut Driver to lower posts P1 and P4.
5. Place the Reel Table Height Gauge on the Post Adjustment Plate and lower the scraper so that it touches the plate.

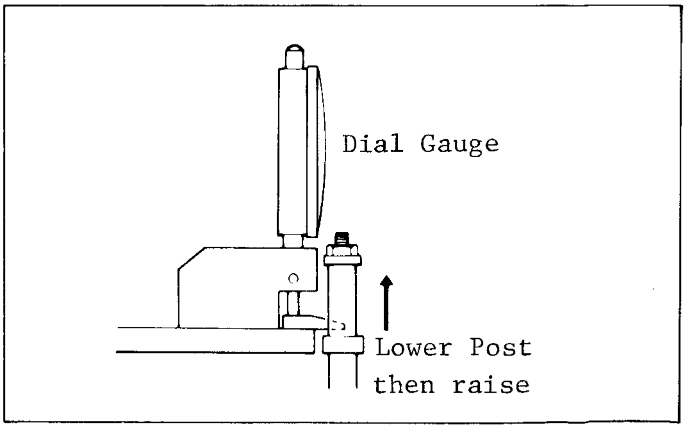


Fig. M18

6. Place the side of the scraper against the each post as shown in Fig. M18, set the gauge to zero, then slowly raise the post until the lower tape guide just touches the bottom of the scraper. Use the gauge to determine the exact point at which the lower tape guide touches the scraper.

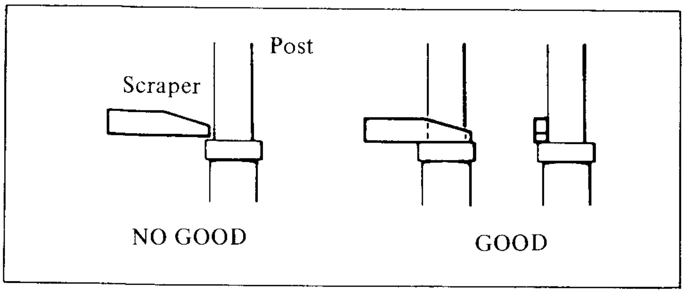


Fig. M19

7. Tighten the hex screws on posts P2 and P4.

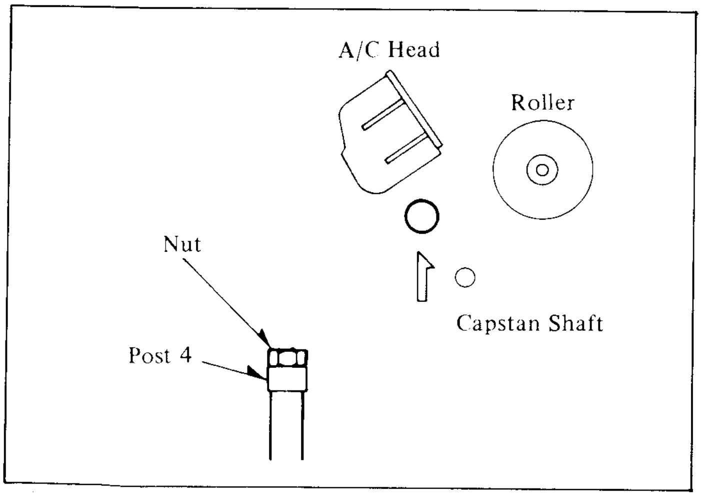


Fig. M20

## 3-9. ADJUSTMENT OF THE PULL-OUT POST HEIGHT

* Note :

1. This adjustment should be performed only after adjusting tape guide post P4 as the height of the pull-out post is based on the height of post P4.
2. This adjustment should be performed with the unit in the loading-completion mode.
3. When replacing or adjusting the pull-out post, unplug the unit from the power source.

* Tools and Equipment:
Post Adjustment Plate ...... VFK0138
Reel Table Height Gauge .... VFK0139
Nut Driver (purchase locally)

* Specification:
0.025mm ± 0.01mm

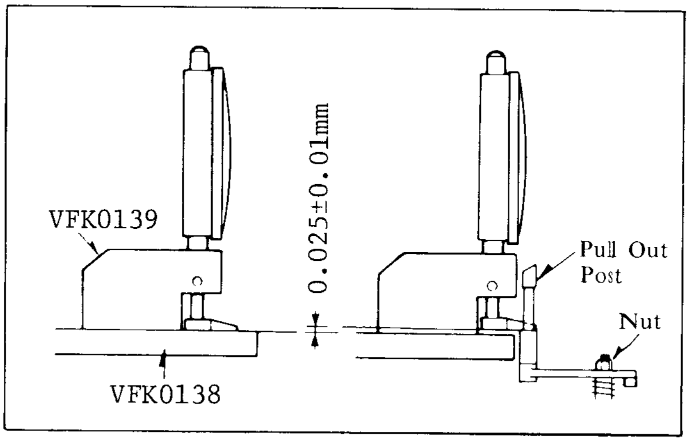


Fig. M21

1. Remove the Cassette Compartment.
2. Turn the power switch on.
3. Insert a cassette tape to the cassette compartment, blind the supply photo transistor with a piece of black tape, then press the Play button. This simulates the loading-completion mode.
4. Unplug the unit from the power source.
5. Place the Post Adjustment plate over the reel tables.
6. Place the Reel Table Height Gauge on the Post Adjustment Plate, lower the scraper so that it touches the plate, then set the gauge to zero ("0").
7. Slightly lower the pull-out post by turning the nut on the post clockwise with the nut driver, and set the side of the scraper against the post as shown in Fig. M22.

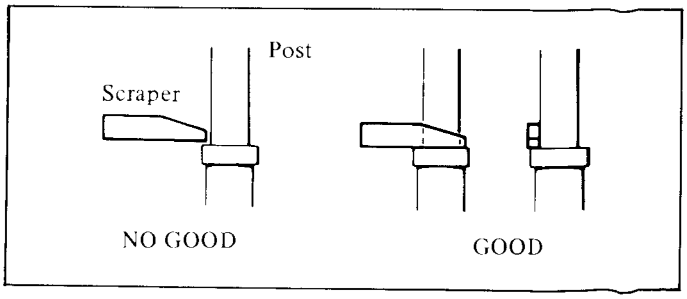


Fig. M22

8. Slowly turn the nut on the post counter-clockwise until the gauge reads 0.025mm ± 0.01mm.
9. Remove the tape from the supply photo transistor.
10. Plug the unit back into the power source to "unload" the unit, then reinstall the Cassette Compartment.

## 3-10. TAPE INTERCHANGEABILITY ADJUSTMENT

* Note:

Be sure that the tracking control is set in the center detent (fitted) position before performing this adjustment.

* Equipment Required:

| | |
|---|---|
| Alignment Tape | VFM8100H3D |
| Post Adjustment Screwdriver | VFK0137 |
| H-Position Adjustment Screwdriver | VFK0189 |
| Hex. Wrench (1.5mm) | VFK76 |

Confirmation of Tape Travel

To prevent the alignment tape from being damaged, use a normal cassette tape for this procedure.

1. Playback the cassette tape and confirm that the tape travels without curling at the edges.
2. If curling is apparent, adjust the height of posts by turning the top of post with the post adjustment screwdriver (Posts P2 and P3) or with the nut driver (Post P1).

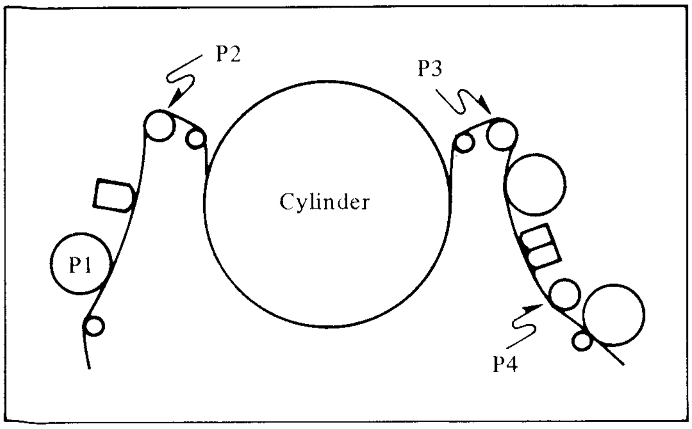


Fig. M23 Loading of Posts

Note:

Before attempting to adjust posts P2 and P3, slightly loosen the hex screw located below the lower tape guide on each post.

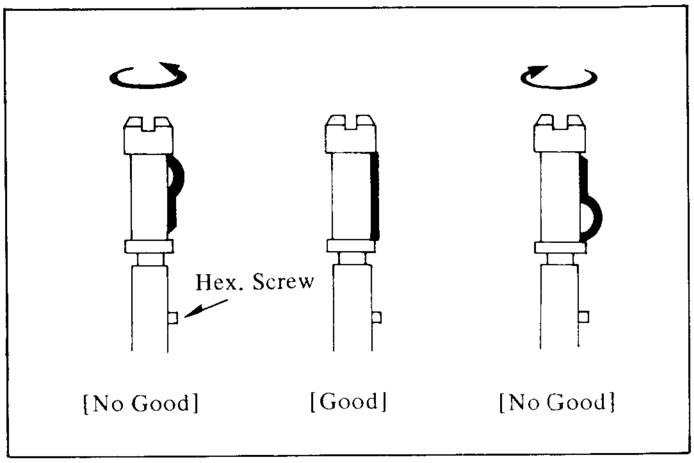


Fig. M24

## 3-11. CONFIRMATION OF THE A/C HEAD HEIGHT

* Note:

This procedure should be performed only when the A/C Head is replaced.

With the tape running, lock at the lower edge of the control head check to see that the lower edge of tape runs along the lower edge of the control head.
If it doesn't, slightly turn the nut (A) behind the A/C head (Fig. M25) to either lower or raise the A/C head so that the tape runs along the lower edge of the control head.
Turn the nut (A) clockwise to lower the head, and counter-clockwise to raise it.

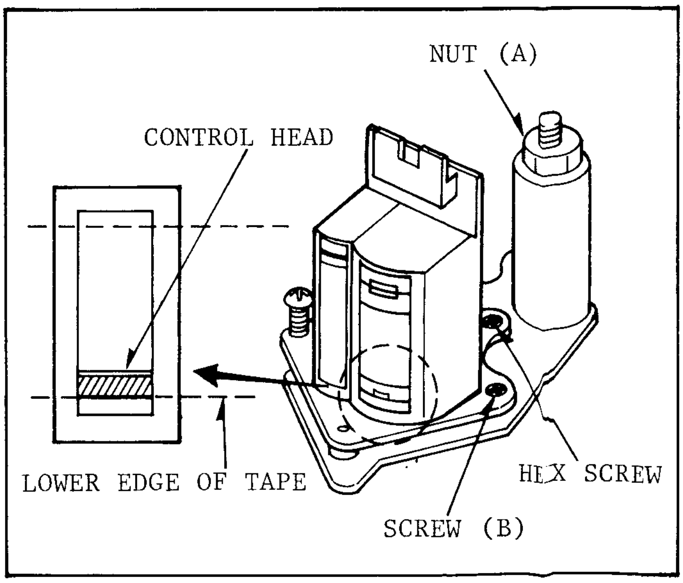


Fig. M25

## 3-12. ADJUSTMENT OF THE A/C HEAD HEIGHT

1. Connect the oscilloscope to the audio output on the rear of the deck.
2. Playback the alignment tape (VFM8100H3D).
3. Adjust the Hex screw and the screw (B) or the head base so that the output level is maximized (Fig. M25, M26).

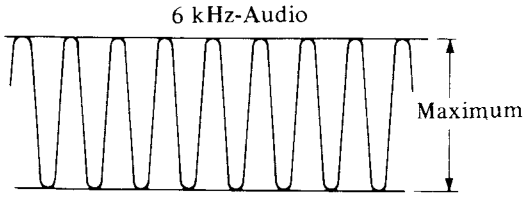


Fig. M26 Adj. of the A/C Head Height

## 3-13. CONFIRMATION OF THE A/C HEAD TILT

* Note:
This procedure should be performed only after adjusting the height of tape guide post (P4). (Refer to "ADJUSTMENT OF TAPE GUIDE POST HEIGHTS".)

Playback the tape and confirm that the tape runs between lower and top limiters of the post. If there is waving or frilling in the lower edge or top edge of the tape, correct the tilt of the A/C head by turning the hex screw located behind the A/C head (Fig. M27).

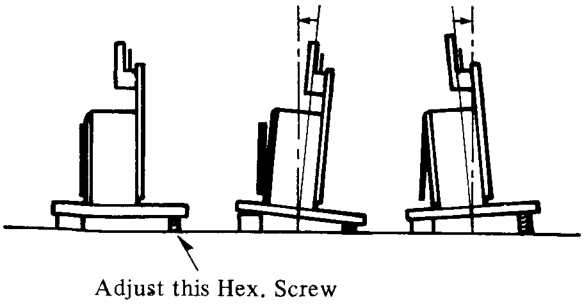


Fig. M27 A/C Head Tilt Adj.-(1)

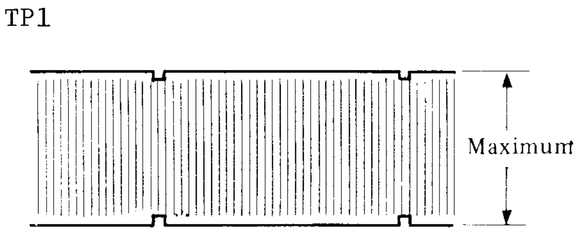


Fig. M28 A/C Head Tilt Adj.-(2)

## 3-14. ADJUSTMENT OF A/C HEAD TILT

1. Connect the oscilloscope to TP1 on the Mechanism Conn. C.B. Use TP2 to Ext-trigger the oscilloscope.
2. Playback the alignment tape (VFM8100H3D).
3. Adjust the hex screw located behind the A/C head so that the RF envelope output level is maximized (Fig. M28).

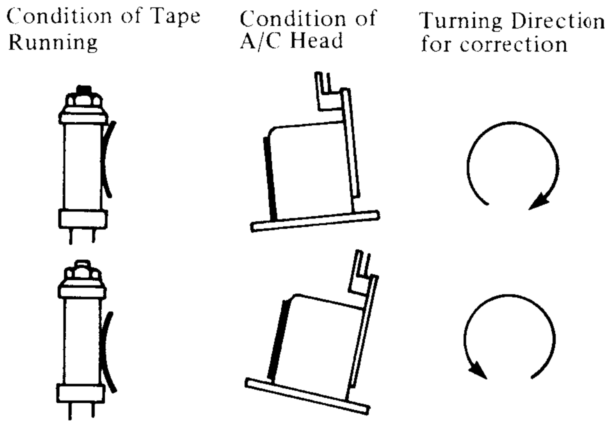


Fig. M29

## 3-15. ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION

1. Connect the oscilloscope to TP1 on the Mechanism Conn. C.B. Use TP2 to Ext-trigger the oscilloscope.
2. Playback the alignment tape (VFM8100H3D) and check the shop of the envelope.
3. If adjustment is required, turn the adjustment nut the H-position adjustment screwdriver so that the envelope output is maximized.

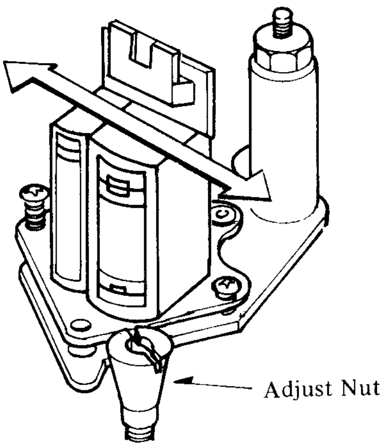


Fig. M30

### 3-16. CONFIRMATION OF THE ENVELOPE OUTPUT (NORMAL)

1. Set the tracking control in the detent (fixed) position.
2. Connect the oscilloscope to TP1 on the Mechanism Conn. C.B. Use TP2 to Ext-trigger the oscilloscope.
3. Playback the alignment tape (VFM8100H3D).
4. Adjust tape guide posts P2 and P3 so that the RF envelope on the oscilloscope is as flat as possible (V1/V ≧ 0.7, V2/V ≧ 0.8).

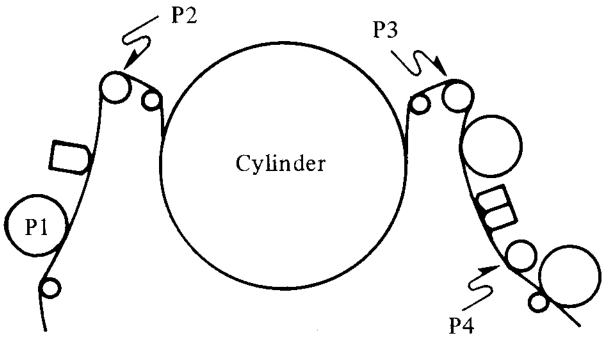


Fig. M31 Loading of Posts

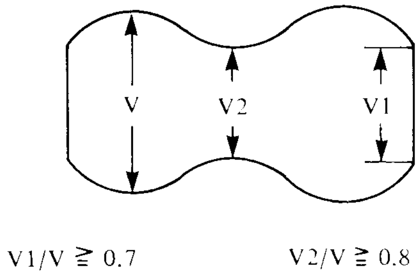


Fig. M32. Spec. of Envelope Figure

### 3-17. CONFIRMATION OF ENVELOPE OUTPUT (SLOW & STILL)

1. Connect a jumper wire between P3007-(2) on the Luminance P.C.B and the ground.
2. Set the tracking control to the center detent position.
3. Connect the oscilloscope to TP1 on the Mechanism Conn. C.B. Use TP2 Ext-trigger the oscilloscope.
4. Playback the alignment tape (VFM8100H3D).
5. Confirm that the envelope output figure specifications have not change from the normal playback specifications (Fig. M32).

Confirmation of 180 degree Video Head

1. Set the tracking control to the centre detent position and playback the alignment tape (VFM8100H3D).
2. Confirm that period A is less than 1/48H. (Fig. M33)

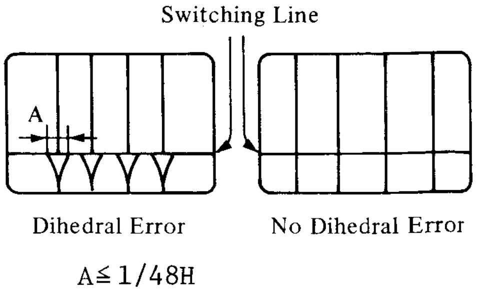


Fig. M33

## 3-18. ADJUSTMENT OF CAM GEAR AND MODE SELECT SWITCH

General Condition:

The mechanism of this model is mostly engaged to the electrical circuit, System Control Circuit, through the mode select switch. Therefore the relation between the mode switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If the adjustment of this item is performed improperly, the deck will be unloaded or compulsorily stopped. And it will result being damaged at any mechanical or electrical parts.

Note:
Before the adjustments turn power switch on insert a cassette tape and set the mode select switch to the stop position, and plug off.

A. Adjustment Procedures of Cam Gear

1. Turn Loading gear clockwise until the post 2 and 3 were fully unloaded. The small projection on the loading gear will be top portion under the condition of Unloading Completion.

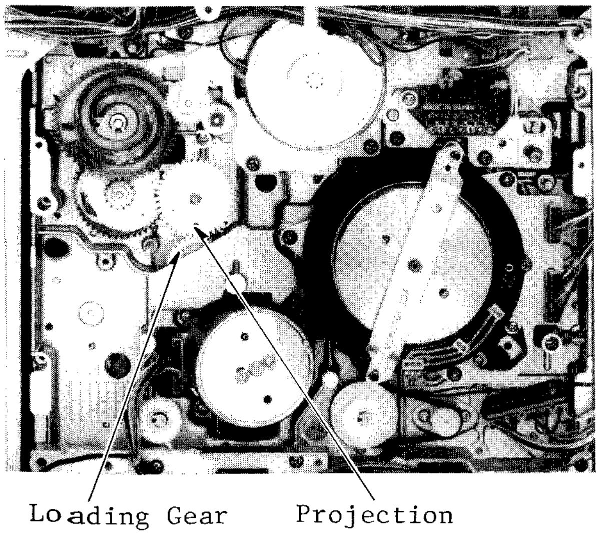


Fig. M34

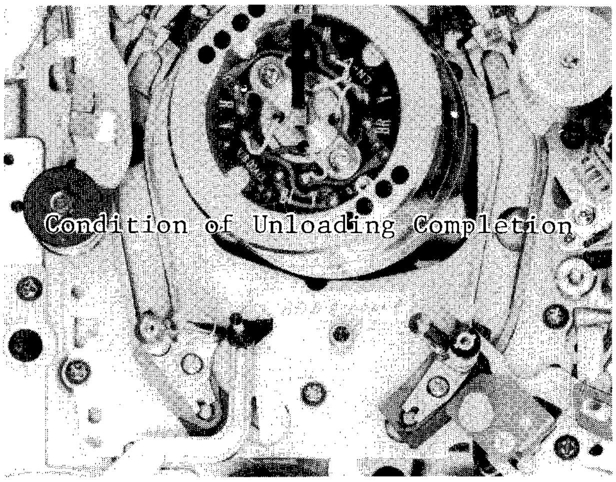


Fig. M35

2. Install the action gear so that the 4th dimple from the hole on the action gear to the left meets the projection on the loading gear. Ensure that the loading gear is still in the condition of the unloading completion.

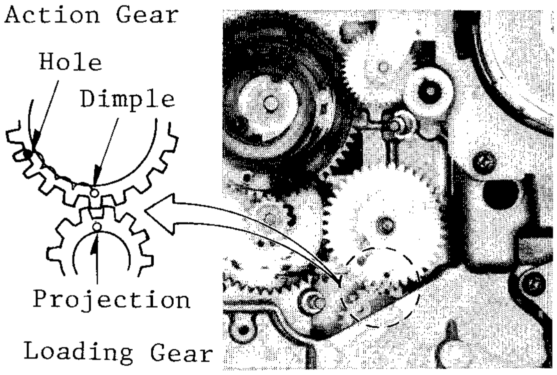


Fig. M36

3. Slowly slide the main lever so the V-shaped mark meet the V-shaped mark of the mode select switch. With the result, main lever and mode select switch are in a position to be stop (unloading completion) mode.
4. Insert the cam gear so the hole (A) on the gear meets the hole on the main lever. To meet the two holes easier, use the small hex. wrench (VFK75) or metal pin.
Also ensure the two V-shaped marks are fixed.

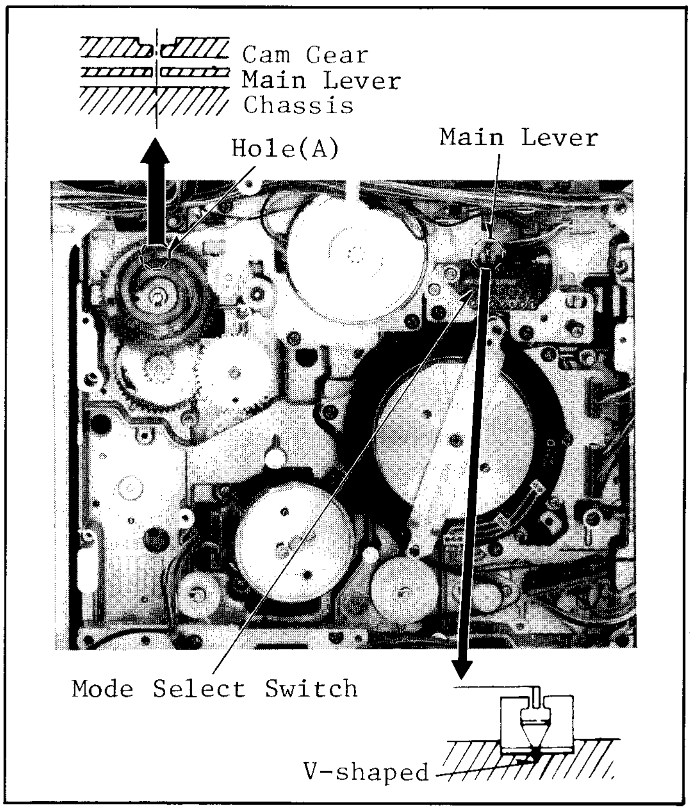

Cam Gear
Main Lever
Chassis
Hole(A)
Main Lever
Mode Select Switch
V-shaped

Fig. M37

5. Install the sector gear so the pin on the sector gear meets the inner slot of the cam gear (simple slot side). And install 2 retaining rings to mount cam gear and sector gear.

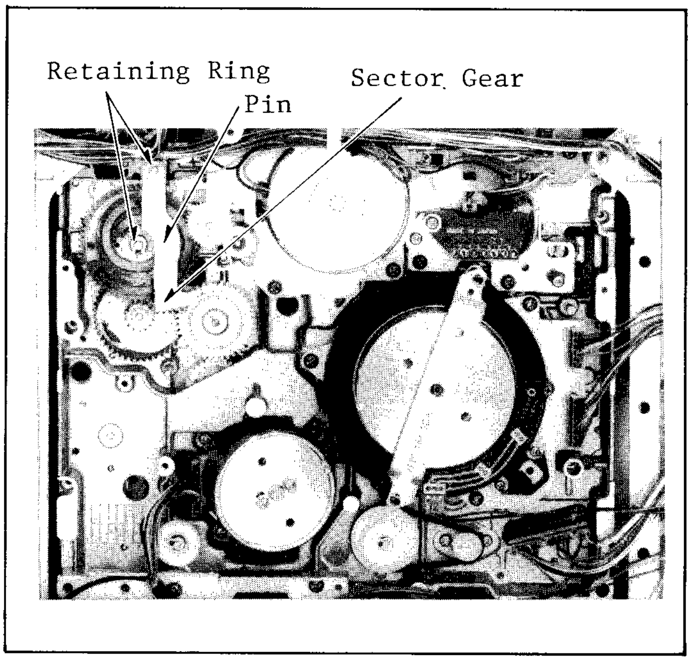

Retaining Ring
Pin
Sector Gear

Fig. M38

6. Final figure should become as shown below, and at the same time two V-shaped marks are fixed at the mode select switch.

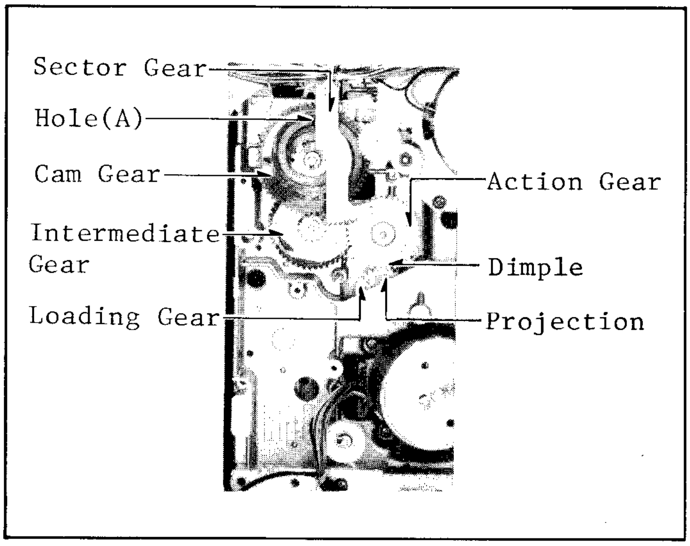

Sector Gear
Hole(A)
Cam Gear
Intermediate Gear
Loading Gear
Action Gear
Dimple
Projection

Fig. M39

7. Install the gear protector and tighten the nut for mounting it. And install the large gear so the teeth of it contact the outer teeth of the intermediate gear. Then install a retaining ring to mount it.
8. Install the belts and belt cover and tighten a screw (C). Turn the large pulley in both direction to confirm the smooth movement of this mechanism.

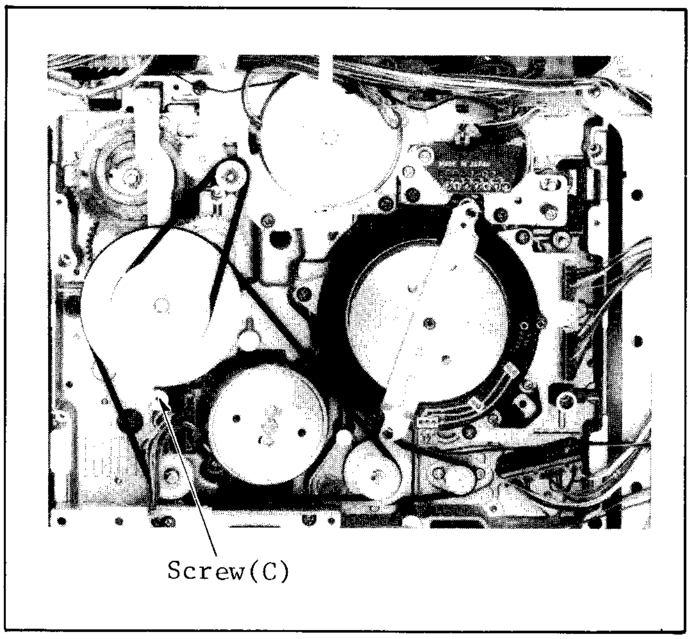


Fig. M40

## B. Adjustment Procedures of Mode Select Switch

* Equipment Required:
Fine Adjustment
Screwdriver ................ VFK0136

1. Fix the main lever in the condition of unloading completion.
2. Slightly loosen two screws (A) and the fine adjustment screwdriver into the hole (B).
3. Turning the fine adjustment screwdriver, adjust the position of the mode select switch so that the two V-shaped marks of the mode select switch just correspond at the same position. Then tighten two screws (A).
4. Make sure that the movement of the deck is in normal condition.

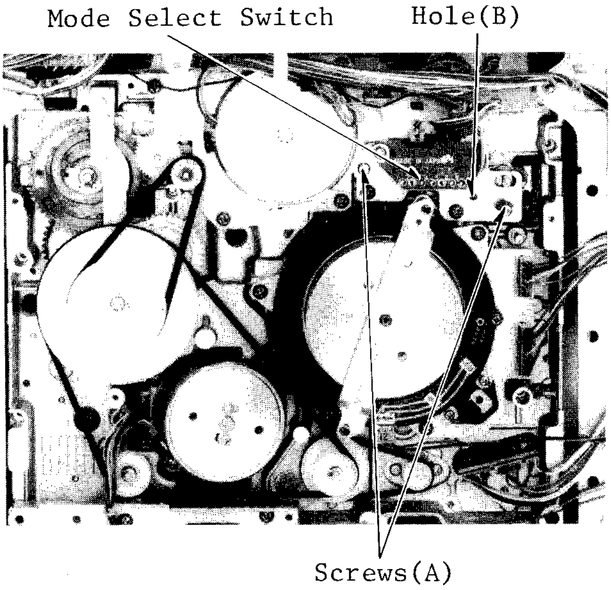
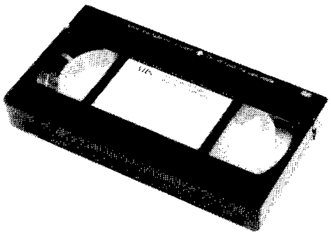


Fig. M41

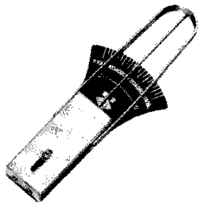
# Servicing Fixtures & Tools

**VFM8100H3D** **VHS Alignment Tape**
(PAL SP Mode)
Contents Monoscope (Video)
6kHz (Audio)

**VFM8080H2** **VHS Alignment Tape**
(NTSC SP Mode)
Contents Monoscope (Video)
Color Bars
Multi-Burst
6kHz 3kHz 1kHz (Audio)

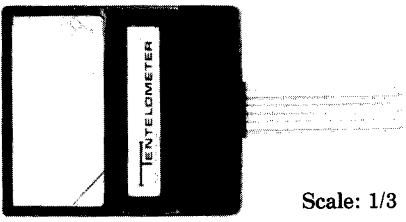


**VFK66** **Fan Type Tension Gauge**



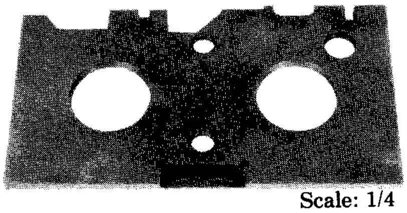
Scale: 1/6

**Back Tension Meter** **(T2-H7-UM)**
(Tentelometer, Made in U.S.A.)



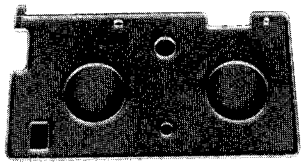
Scale: 1/3

**VFK0138** **Post Adjustment Plate**



Scale: 1/4

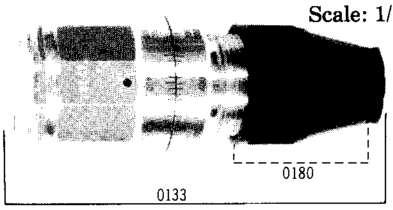
**VFK0187** **Tension Post Adj. Fixture**



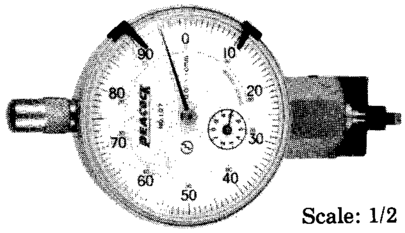
Scale: 1/5

**VFK0133** **(Dial Torque Gauge)**
**VFK0180** **(Plastic Clamper Only)**

Scale: 1/2



**VFK0139** **Reel Table Height Fixture**

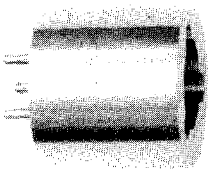


Scale: 1/2

**VFK0189** **H-Position Adj. Fixture**

Scale: 1/2

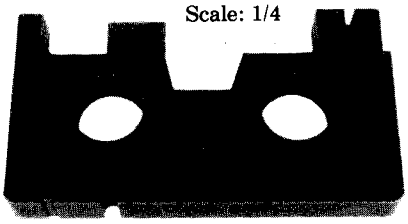
**VFK0134** **Adaptor for VFK0133**



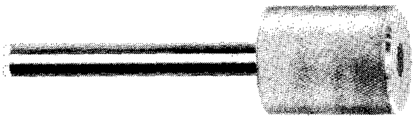
Scale: 1

**VFK0188** **Cassette Holder Fixture**

Scale: 1/4



**VFK0137** **Post Adjustment Screwdriver**

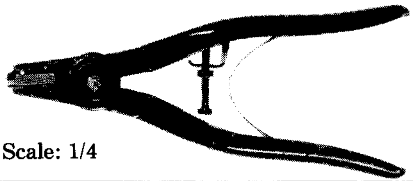


Scale: 1/2

**VFK0135** **Eccentric Screwdriver**

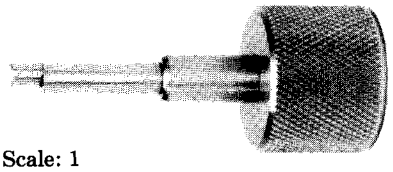
Scale: 3/5

**VFK0144** **Retaining Ring Remover (3mmϕ)**
**VFK0145** **Retaining Ring Remover (4mmϕ)**



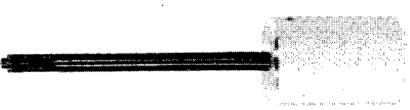
Scale: 1/4

**VFK0235** **Dihedral Adj. Tool**



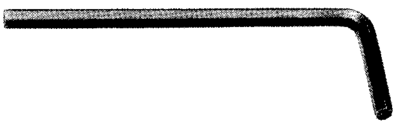
Scale: 1

**VFK0136** **Fine Adjustment Screwdriver (3mmϕ)**

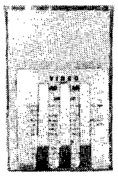


Scale: 1/2

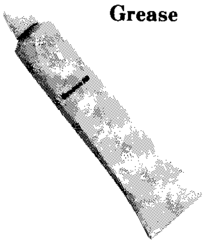
**VFK0146** **Hex. Wrench (0.9mm)**
**VFK75** **Hex. Wrench (1.25mm)**
**VFK76** **Hex. Wrench (1.5mm)**



**VFK27**
**Head Cleaning Stick**



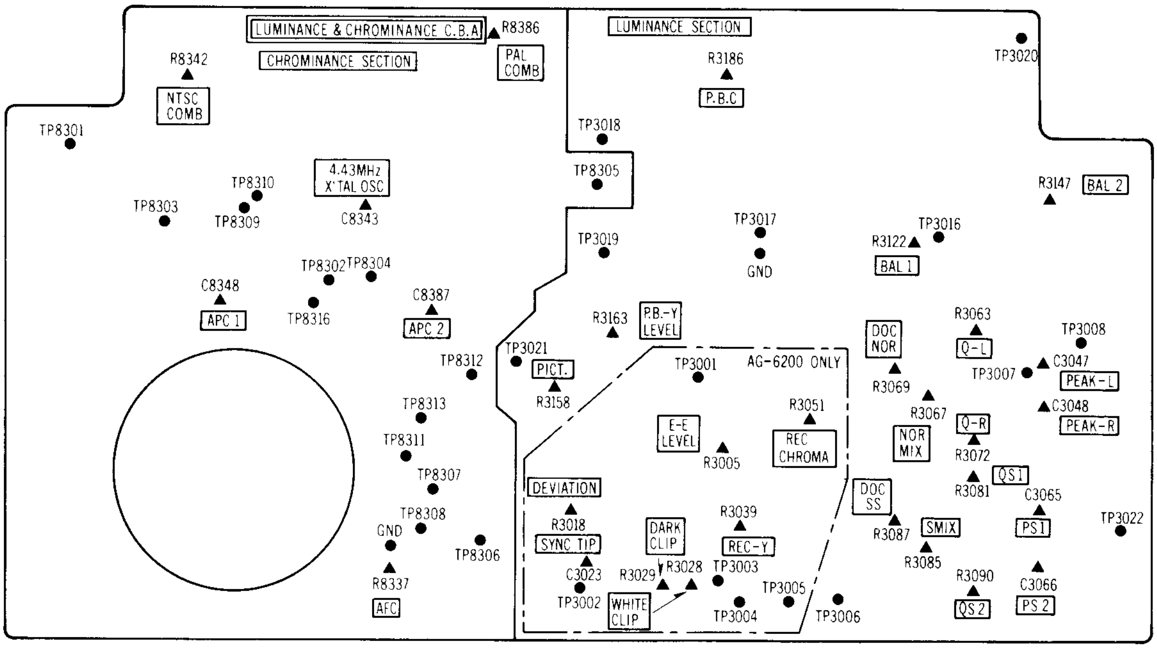
**MOR265** **Morlytone Grease**



# Location of Test Points

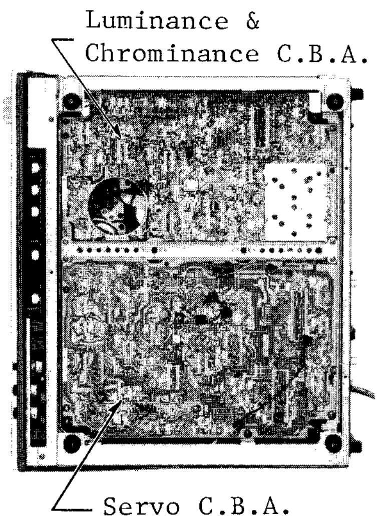
## Luminance & Chrominance C.B.A.

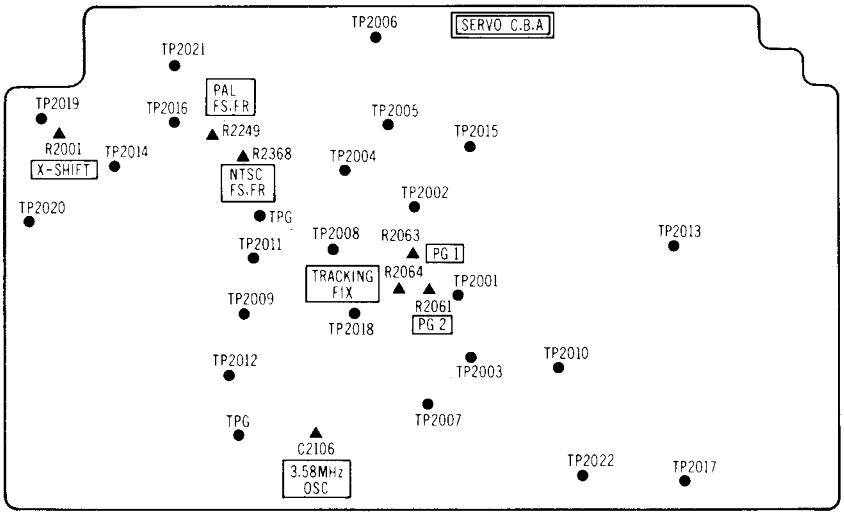
### (VEP03164C, D)


LUMINANCE & CHROMINANCE C.B.A
R8386
PAL COMB
CHROMINANCE SECTION
R8342
NTSC COMB
TP8301
TP8310
4.43MHz X'TAL OSC
C8343
TP8303
TP8309
TP8302
TP8304
C8348
APC 1
TP8316
C8387
APC 2
TP8312
TP8313
TP8311
TP8307
TP8308
GND
TP8306
R8337
AFC
LUMINANCE SECTION
R3186
P.B.C
TP3020
TP3018
TP8305
TP3019
TP3017
GND
R3147
BAL 2
TP3016
R3122
BAL 1
R3163
P.B.-Y LEVEL
TP3021
PICT.
R3158
TP3001
AG-6200 ONLY
DOC NOR
R3063
Q-L
TP3008
TP3007
C3047
PEAK-L
R3069
R3067
C3048
PEAK-R
E-E LEVEL
R3005
R3051
REC CHROMA
NOR MIX
Q-R
R3072
QS1
R3081
C3065
DEVIATION
R3018
SYNC TIP
DARK CLIP
R3039
REC-Y
DOC SS
R3087
SMIX
R3085
PS1
TP3022
C3023
R3029
R3028
TP3003
TP3002
WHITE CLIP
TP3004
TP3005
TP3006
R3090
QS2
C3066
PS2

## Servo C.B.A.

### (VEP02181A, B)

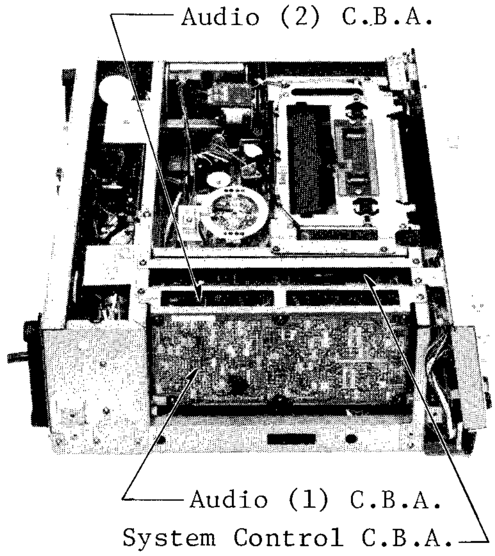

Luminance & Chrominance C.B.A.
Servo C.B.A.

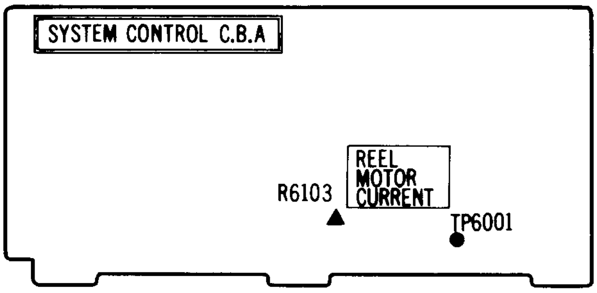

TP2006
SERVO C.B.A
TP2021
TP2019
TP2016
PAL FS.FR
R2249
TP2005
TP2015
R2001
X-SHIFT
TP2014
R2368
NTSC FS.FR
TP2004
TP2002
TP2020
TPG
TP2008
R2063
PG 1
TP2013
TP2011
TRACKING FIX
R2064
TP2001
TP2009
R2061
PG 2
TP2018
TP2012
TP2003
TP2010
TPG
TP2007
C2106
3.58MHz OSC
TP2022
TP2017

# Points & Controls

## System Control C.B.A.

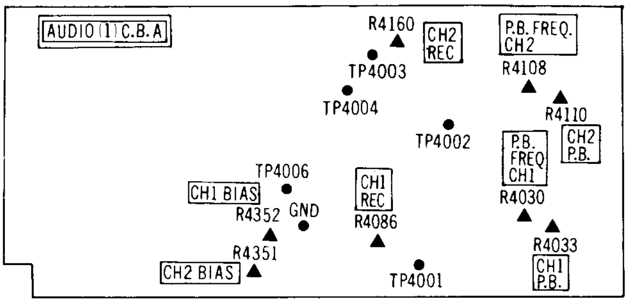
## (VEP06190B1)


Audio (2) C.B.A.
Audio (1) C.B.A.
System Control C.B.A.


SYSTEM CONTROL C.B.A
REEL MOTOR CURRENT
R6103
TP6001

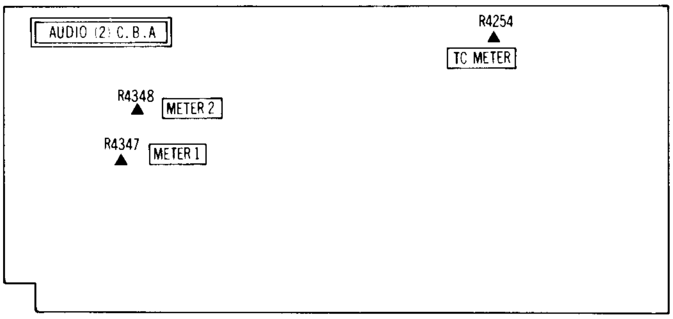
## Audio (1) C.B.A.

## (VEP04093A, B)


AUDIO (1) C.B.A
R4160
CH2 REC
TP4003
TP4004
P.B. FREQ. CH2
R4108
R4110
TP4002
CH2 P.B.
P.B. FREQ CH1
TP4006
CH1 BIAS
CH1 REC
R4352
GND
R4086
R4030
R4351
CH2 BIAS
TP4001
R4033
CH1 P.B.

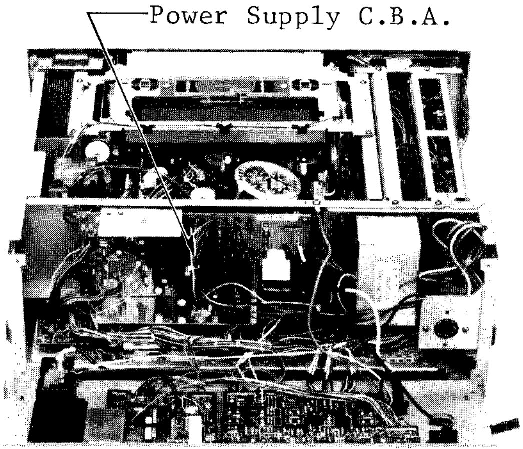
## Audio (2) C.B.A.

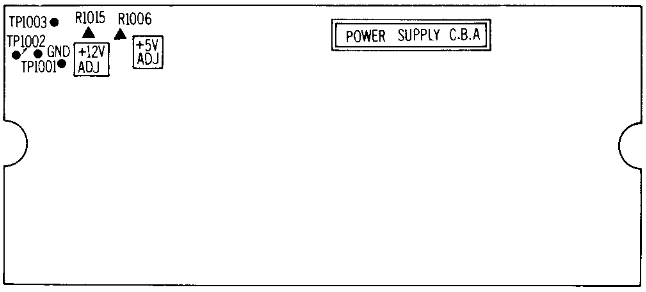
## (VEP04094A)


AUDIO (2) C.B.A
R4254
TC METER
R4348
METER 2
R4347
METER 1

## Power Supply C.B.A.

## (VEP01138B1)


Power Supply C.B.A.


TP1003
R1015
R1006
TP1002
GND
TP1001
+12V ADJ
+5V ADJ
POWER SUPPLY C.B.A

# ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete electrical adjustment procedures which may be required for electric circuits of VHS video cassette recorder Model AG-6200 and player Model AG-6100.

## TEST EQUIPMENT

To perform the electrical adjustments completely, the following equipment is required.

1. VTVM (Vacuum Tube Volt Meter) or high IMPEDANCE DIGITAL VOLTMETER
   Voltage Range: 0.005-50V
2. Dual Trace Oscilloscope with Delay FUNCTION
   Voltage Range: 0.005-5V/div.
   Frequency Range: 20MHz
   Probes: 10:1 and 1:1
3. Frequency Counter
   Frequency Range: 0-10MHz
4. Signal Generator
   Split-Field Colour Bar Signal
   Stairstep Signal
   Sine Wave Signal
   Frequency Range: 0-10MHz
5. Reference Test Tape: VFM8100H3D (PAL)
   VFM8080H2 (NTSC)
6. Sweep Generator
7. Colour TV/Monitor
8. Plastic Tip Driver

Note:
(1) Unless otherwise specified, all adjustments apply to both AG-6200 and AG-6100.
(2) When started in the Service Manual, the REC mode means Recording with the tape running. The E-E mode means the REC button is pressed, but the tape is not running.

## ADJUSTMENT PROCEDURES

### 1. POWER SUPPLY SECTION

Note:
Unless otherwise specified, all test points and controls are located on the Power Supply C.B.A.

### 1-1. +5V Adjustment

Test Point: TP1001
Adjustment: R1006 (+5V ADJ)

1. Connect the D.V.M. to TP1001 and GND.
2. Set the unit in the REC/PLAY mode (AG-6200) or PLAY mode (AG-6100).
3. Adjust +5V Adj, R1006 so that the voltage becomes 5V ± 0.1V.

### 1-2. +12V Adjustment

Test Point: TP1002
Adjustment: R1015 (+12V ADJ)

1. Connect the D.V.M. to TP1002 and GND.
2. Set the unit in the REC/PLAY mode (AG-6200) or PLAY mode (AG-6100).
3. Adjust +12V Adj, R1015 so that the voltage becomes 12V ± 0.1V.

### 2. SYSTEM CONTROL SECTION

Note:
Unless otherwise specified, all test points and controls are located on the System Control C.B.A.

### 2-1. Reel Motor Current Adjustment

Test Point: TP6001
Adjustment: R6103 (R.M.C.)

1. Connect the D.V.M. to TP6001 and GND.

2. Playback the beginning portion of NV-E180 tape and make sure that the identification of D.V.M. is met the following specifications.

| MARKING | VOLTAGE (mV) |
|---|---|
| PINK | 200-210 |
| BLACK | 190-200 |
| ORANGE | 180-190 |
| RED | 170-180 |

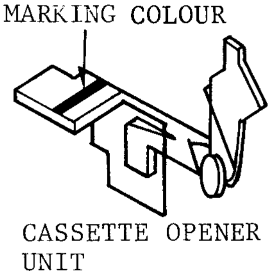


Fig. E1

3. If it is out of specification then adjust the R.M.C. (R6103) to meet the specification mentioned above.

## 3. SERVO SECTION

Note:
Unless otherwise specified, all test points and controls are located on the Servo C.B.A.

### 3-1. NTSC Reference Frequency Adjustment

Test Point: TP2009
Adjustment: C2106 (3.58MHz OSC)

1. Set the SYSTEM switch to the NTSC position.
2. Connect the frequency counter to TP2009.
3. Set the unit in the STOP mode.
4. Adjust 3.58MHz OSC, C2106 so that the frequency becomes 3.579545MHz ± 50Hz.

### 3-2. X-Value Shift Adjustment

Test Points: TP2019, TP2020
Adjustment: R2001 (X-SHIFT)

1. Set the SYSTEM switch to the PAL position.
2. Connect the scope CH1 to TP2019 and CH2 to TP2020.
3. Set the unit in the STOP mode.
4. Adjust X-SHIFT, R2001 so that "T" width becomes 9.5 ± 0.1msec.

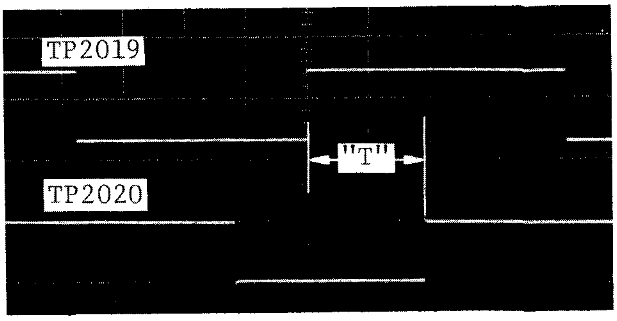


Fig. E2. UP : TP2019 2V/5msec.div.
DOWN: TP2020 5V/5msec.div.

### 3-3. PG Shifter Adjustment

Test Points: TP3020, TP3019
(Luminance & Chrominance C.B.A.)
TP2004
Adjustments: R2063 (PG1)
R2061 (PG2)

1. Set the SYSTEM switch to the PAL position.
2. Connect the scope to TP3020 on the Luminance & Chrominance C.B.A.
3. Playback the alignment tape (VFM8100H3D).
4. Adjust the Tracking Control on the Front Panel so that the envelope level becomes maximum.
5. Change the scope CH1 to TP3019 on the Luminance & Chrominance C.B.A. and CH2 to TP2004. Set the scope to CHOP mode and use TP2004 as a trigger signal.
6. Set the triggering slope of scope to the "+" side, and expand the V sync portion of the signal.
7. Adjust PG1, R2063 so that the rising edge of switching pulse is 6.5H ± 0.5H before the V sync portion.

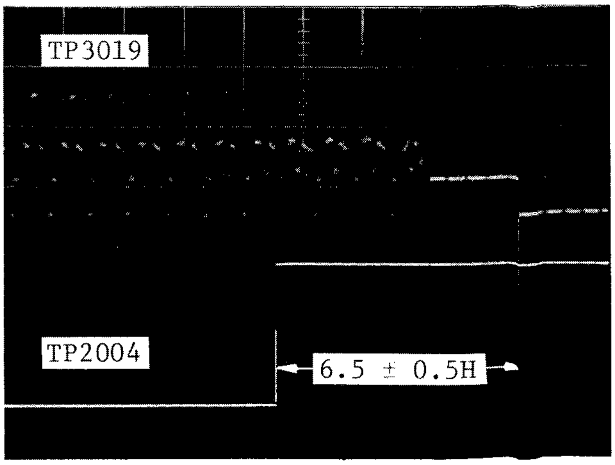


Fig. E3. UP : TP3019 2V/0.1msec.div.
DOWN: TP2004 1V/0.1msec.div

8. Change the triggering slope of the scope from "+" to "-" side, and adjust PG2, R2061 so that the difference between the rising and falling edges are less than 10μsec.

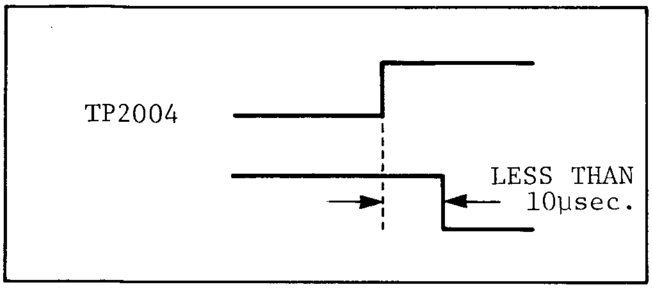


Fig. E4

### 3-4. PAL Mode Fine Slow Free Run Adjustment

Test Point: TP2013
Adjustment: R2249 (FS.FR)

1. Set the SYSTEM switch to the PAL position.
2. Connect a jumper between TP2016 and TP2021. And short TP2011 and TP2012 to the ground by jumper wires.
3. Connect the frequency counter to TP2013.
4. Playback the alignment tape (VFM8100H3D).
5. Adjust FS.FR, R2249 so that the frequency becomes 1450 ± 10Hz.

### 3-5. NTSC Mode Fine Slow Free Run Adjustment

Test Point: TP2013
Adjustment: R2368 (NTSC FS.FR)

1. Set the SYSTEM switch to the NTSC position.
2. Connect a jumper between TP2016 and TP2021. And short TP2011 and TP2012 to the ground by jumper wires.
3. Connect the frequency counter to TP2013.
4. Playback the alignment tape (VFM8080H2).
5. Adjust NTSC FS.FR, R2368 so that the frequency becomes 1750 ± 10Hz.

### 3-6. Tracking Fix Adjustment

Test Points: TP2004, TP2001
Adjustment: R2064 (TRACKING FIX)

1. Set the SYSTEM switch to the PAL position.
2. Set the Tracking Control on the Front Panel to centre detent position.
3. Connect the scope CH1 to TP2004 and CH2 to TP2001.
4. Playback the alignment tape (VFM8100H3D).
5. Adjust TRACKING FIX, R2064 so that the "T" portion becomes 9.9 ± 0.1msec.

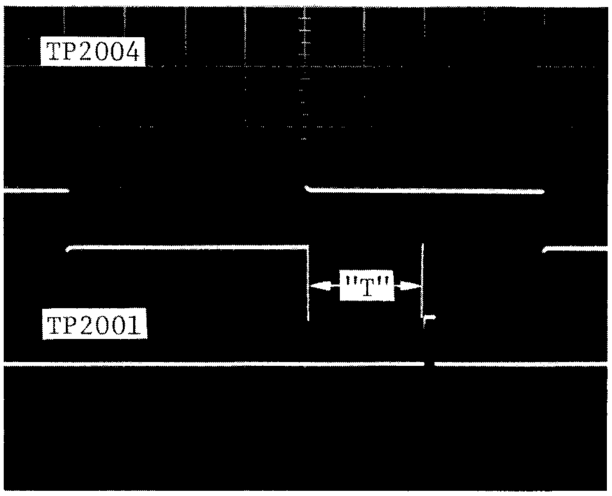


Fig. E5. UP : TP2004 5V/5msec.div.
DOWN: TP2001 5V/5msec.div.

## 4. LUMINANCE & CHROMINANCE SECTION

Note:

Unless otherwise specified, all test points and controls are located on the Luminance & Chrominance C.B.A.

### 4-1. 4.43MHz OSC Adjustment

Test Point: TP8309
Adjustment: C8343 (4.43MHz OSC)

1. Set the SYSTEM switch to the PAL position.
2. Connect the scope CH1 to TP8309 and connect the frequency counter to CH1 output of the scope. Set the scope gain to proper gain for the counter.
3. Adjust 4.43MHz OSC, C8343 so that the frequency becomes 4.433619MHz ± 10Hz.

### 4-2. AFC Adjustment

Test Point: TP8306
Adjustment: R8337 (AFC)

1. Set the SYSTEM switch to the PAL position.
2. Connect the frequency counter to TP8306.

For AG-6200

3. Do not supply any video signal.
4. Insert a blank tape and set the unit in the REC/PLAY mode.
5. Adjust R8337 so that the frequency becomes 15625 ± 50Hz.
6. Supply a colour bar signal and set the unit in the REC/PLAY mode.
7. Confirm that the frequency is 15625 ± 5Hz.

For AG-6100

3. Set the unit in the STOP mode.
4. Adjust R8337 so that the frequency becomes 15625 ± 50Hz.
5. Playback the colour bar recorded tape.
6. Confirm that the frequency is 15625 ± 5Hz.

### 4-3. APC Adjustment

Test Point: TP8304
Adjustments: C8348 (APC I)
C8387 (APC II)

1. Set the SYSTEM switch to the PAL position.
2. Insert a blank tape and set the unit in the PLAY mode.
3. Connect the scope CH1 to TP8304 and connect the frequency counter to CH1 output of the scope. Set the scope gain to proper gain for the counter.
4. Short TP8302 and TP8311 to the ground by jumper wires.
5. Adjust APC I, C8348 so that the frequency becomes 4.435572MHz ± 50Hz.
6. Set the SYSTEM switch to the PAL position.
7. Remove the jumper wire between TP8302 and TP8311.
8. Short TP8312 and TP8313 to the ground by jumper wires.
9. Adjust APC II, C8387 so that the frequency becomes 4.433619MHz ± 50Hz.

### 4-4. E-E Level Adjustment (AG-6200 only)

Test Point: TP3019
Adjustment: R3005 (E-E)

1. Set the SYSTEM switch to the PAL position.
2. Supply a colour bar signal to the video input.
3. Connect a scope to TP3019.
4. Slowly adjust E-E, R3005 so that the level becomes 2.0 ± 0.05Vp-p.

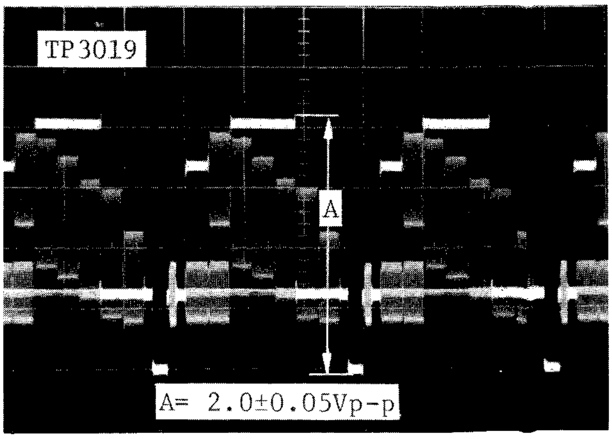


Fig. E6. 0.5V/20μsec.div.

## 4-5. Sync Tip & Deviation Adjustment (AG-6200 only)

Test Point: TP3003
Adjustments: R3018 (DEV)
C3023 (SYNC TIP)

1. Set the SYSTEM switch to the PAL position.
2. Connect the scope to TP3003 with 1:1 probe.
3. Supply a colour bar signal to the video input.
4. Turn the resistors R3039 and R3028 fully clockwise and resistor R3029 fully counterclockwise.
5. Supply a 3.8MHz sine wave signal at -40dB (0.028Vp-p) to TP3004 through the 0.01µF capacitor. Set the frequency precisely with a frequency counter.
6. Set the unit in the REC/PLAY mode.
7. Adjust SYNC TIP, C3023 so that the beat on the sync tip portion of the signal becomes minimum as shown in Fig. E7.
8. Next reset the oscillator to supply a 4.8MHz sine wave signal at -40dB (0.028Vp-p) to TP3004 through the 0.01µF capacitor. Set the frequency precisely with a frequency counter.
9. Adjust DEV, R3018 so that the beat on the white peak portion of the signal becomes minimum as shown in Fig. E7.

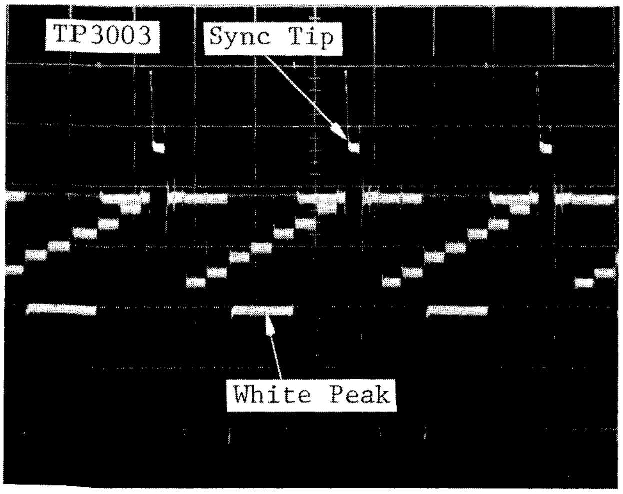


Fig. E7. 0.2V/20µsec.div.

## 4-6. White & Dark Clip Adjustment (AG-6200 only)

Test Point: TP3003
Adjustments: R3029 (Dark Clip)
R3028 (White Clip)

1. Set the SYSTEM switch to the PAL position.
2. Connect the scope to TP3003 with 1:1 probe.
3. Supply a colour bar signal to the video input.
4. Set the unit in the REC/PLAY mode.
5. Adjust Dark Clip, R3029 so that the dark clip portion 50% ± 5%.
6. Adjust White Clip, R3028 so that the white clip portion 75% ± 5%.

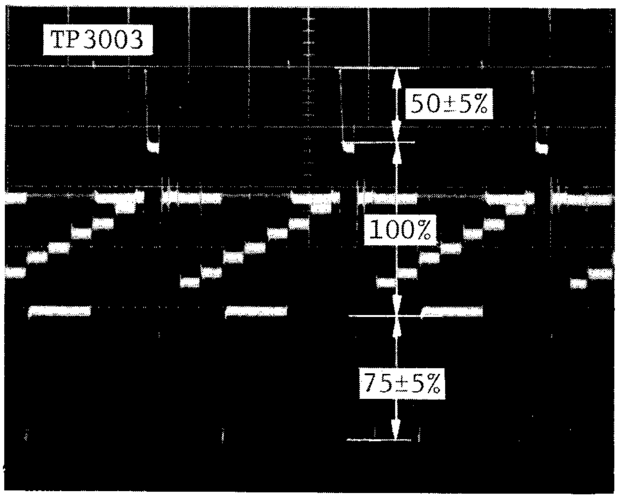


Fig. E8. 0.2V/20µsec.div.

## 4-7. REC Current Adjustment (AG-6200 only)

Test Points: TP3007 (HOT)
TP3008 (GND)
Adjustments: R3051 (REC CHROMA)
R3039 (REC-Y)

1. Set the SYSTEM switch to the PAL position.
2. Connect the scope to TP3007 (HOT) and TP3008 (GND).
3. Supply a colour bar signal to the video input.
4. Set the unit in the REC/PLAY mode.
5. Connect a jumper between TP3004 and GND. And turn the resistor R3039 fully counterclockwise.
6. Adjust REC CHROMA, R3051 so that the level "C" becomes 30 ± 2mVp-p.

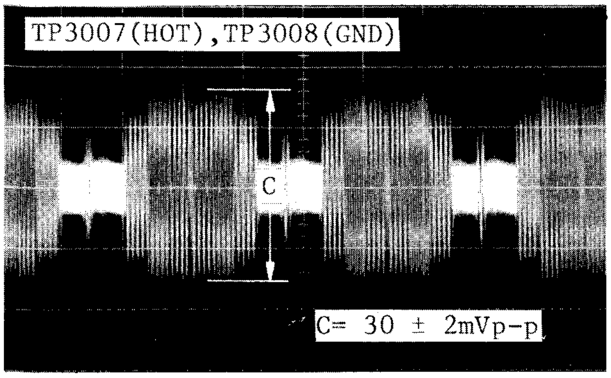


Fig. E9. 10mV/20μsec.div.

7. Disconnect the jumper.
8. Adjust REC-Y, R3039 so that the level "Y" becomes 150 ± 5mVp-p.

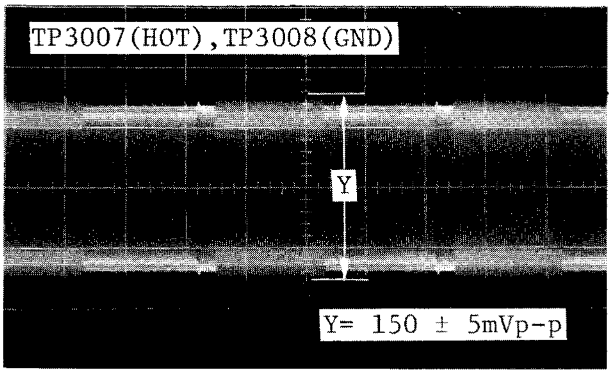


Fig. E10. 50mV/5msec.div.

## 4-8. Head Amp Peak Frequency Adjustment

Preadjustment Procedures

1. Set the sweep generator output as shown below. (Amplitude value of this waveform is terminated with 75Ω.)

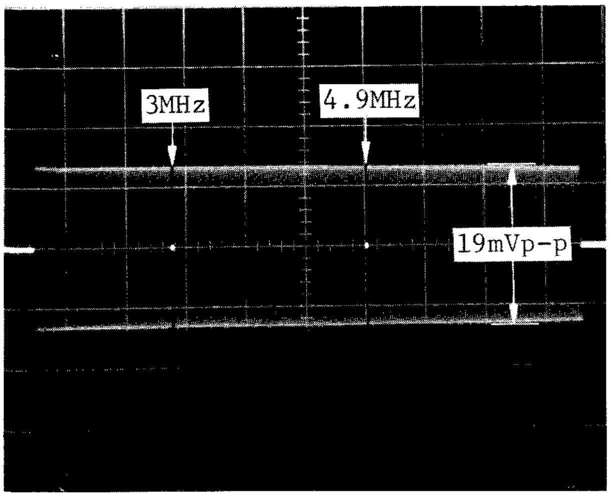


Fig. E11. 5mV/2msec.div.

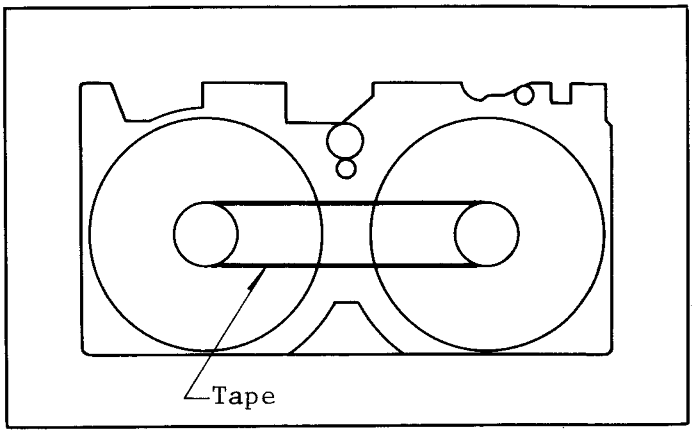


Fig. E12

2. Connect circularly the Supply Reel Hub and Take up Reel Hub of a cassette by the tape as shown in Fig. E12.
3. Set the SYSTEM switch to the PAL position.

Adjustment Procedures

(A) NORMAL Mode

Test Point: TP3020
Adjustments: R3063 (Q-R)
R3072 (Q-L)
C3047 (PEAK-R)
C3048 (PEAK-L)

1. Supply the sweep generator signal as shown in Fig. E11 to TP3006.
2. Connect a scope to TP3020 and use the trigger out signal of the sweep generator as the external trigger.
3. Insert the empty cassette as shown in Fig. E12 and set the unit in the PLAY mode.
4. Adjust Q-R R3063, and Q-L R3072 so that both channel peak levels become 0.2Vp-p.
5. Next adjust PEAK-R, C3047, and PEAK-L, C3048 so that the waveforms become as shown in Fig. E13.

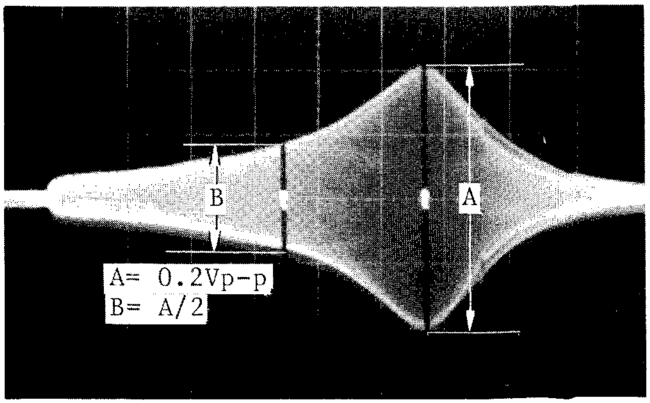


Fig. E13. 50mV/1msec.div.

(B) SS Mode

Test Point: TP3020
Adjustments: R3081 (QS1)
R3090 (QS2)
C3065 (PS1)
C3066 (PS2)

Adjustment Procedures

1. Supply the sweep generator signal as shown in Fig. E11 to TP3006.
2. Connect a scope to TP3020 and use the trigger out signal of the sweep generator as the external trigger.
3. Insert the empty cassette as shown in Fig. E12 and set the unit in the PAUSE mode.
4. Adjust QS1, R3081, and QS2, R3090 so that both channel peak levels become 0.2Vp-p.
5. Next adjust PS1, C3065, and PS2, C3066 so that the waveforms become as shown in Fig. E14.

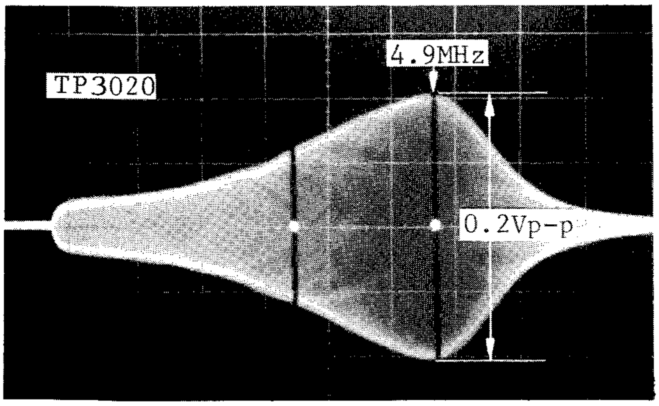


Fig. E14. 50mV/1msec.div.

## 4-9. Head Amp Frequency Characteristics Adjustment

Preadjustment Procedures

1. Set the sweep generator output as shown below. (Amplitude values of this waveform is terminated with 75Ω.)
2. Set the SYSTEM switch to the PAL position.
3. Supply above signal to the video input on the Rear Panel and make a recording.

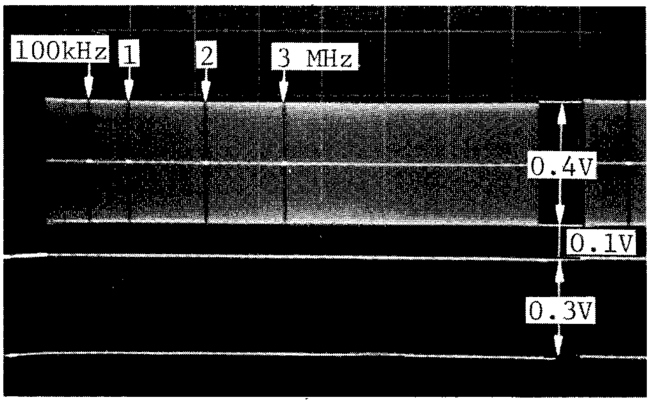


Fig. E15. 0.2V/2msec.div.

Note:
In the AG-6100, if necessary the above adjustment, the master tape should be made by the AG-6200. Refer to the above mentioned Preadjustment procedures (1), (2).

Adjustment Procedures

(A) NORMAL Mode

Test Points: TP3016, TP3019
Adjustments: R3067 (NOR.MIX)
R3069 (DOC NOR)
R3063 (Q-R)
R3072 (Q-L)

1. Set the SYSTEM switch to the PAL position.
2. Connect a scope to TP3016 and playback the just recorded portion.
3. Adjust NOR.MIX, R3067, so that both channel levels become the same. Next adjust DOC NOR, R3069 so that the level becomes 1.1 ± 0.1Vp-p.

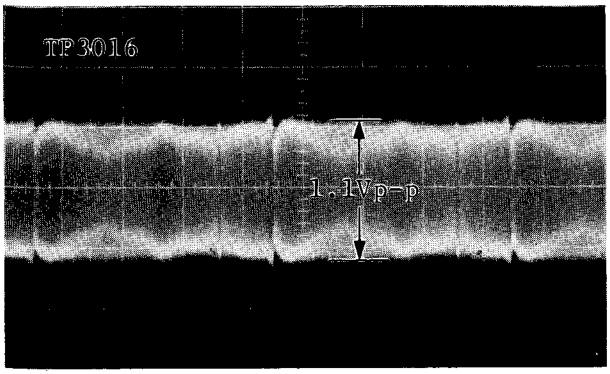


Fig. E16. 0.5V/5msec.div.

4. Change the scope to TP3019 from TP3016.
5. Slowly turn Q-R, R3063, and Q-L, R3069 so that the level ratio at 100kHz and 3MHz becomes 1:0.7 (AG-6200) or 1:0.65 (AG-6100).

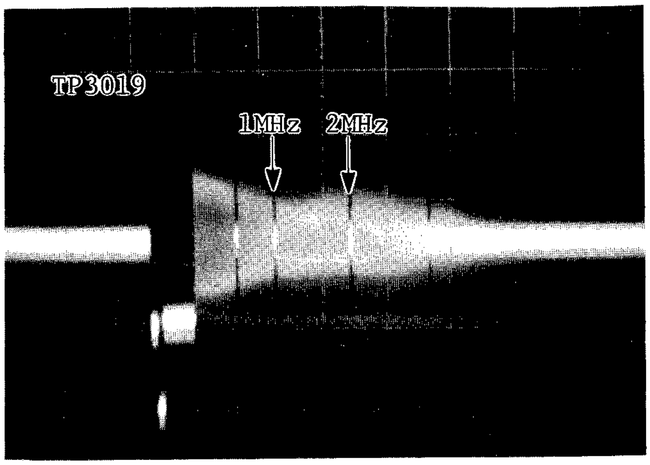


Fig. E17. 0.2V/2msec.div.

### (B) SS Mode

Test Points: TP3016, TP3019
Adjustments: R3085 (SS.MIX)
R3087 (DOC SS)
R3081 (QS1)
R3090 (QS2)

1. Set the SYSTEM switch to the PAL position.
2. Connect a scope to TP3016 and playback the just recorded portion.
3. Set the unit in the PAUSE mode.
4. Adjust SS.MIX, R3085, so that both channel levels become the same. Next adjust DOC SS, R3087 so that the level becomes 1.4 ± 0.1Vp-p.

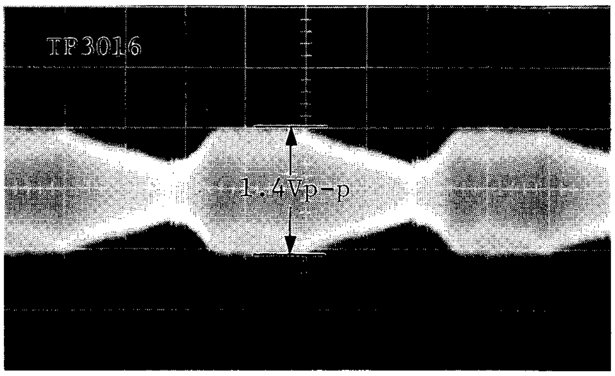


Fig. E18. 0.5V/5msec.div.

5. Change the scope to TP3019 from TP3016.
6. Slowly turn QS1, R3081, and QS2, R3090 so that the level ratio at 100kHz and 3MHz becomes 1:0.65 (AG-6200) or 1:0.6 (AG-6100).

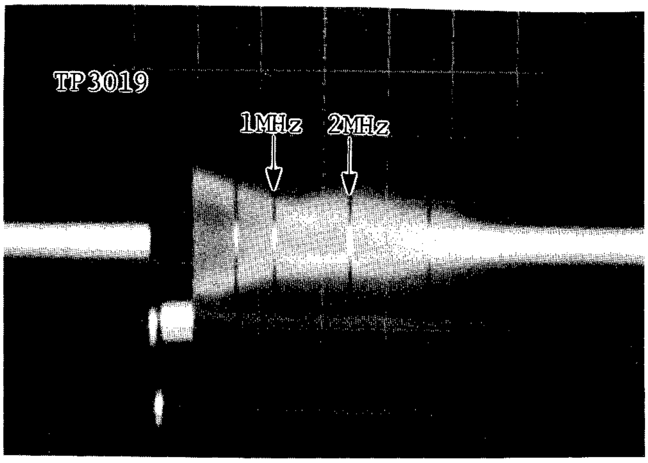


Fig. E19. 0.2V/2msec.div.

## 4-10. Dropout Compensator Input Level Adjustment

Test Point: TP3016
Adjustments: R3069 (DOC NOR)
R3087 (DOC SS)

1. Set the SYSTEM switch to the PAL position.
2. Supply a colour bar signal to the video input on the Rear Panel.
3. Insert a cassette tape and make a short recording.
4. Connect a scope to TP3016 and playback the just recorded portion.

Note:
In the AG-6100, playback the colour bar recorded tape.

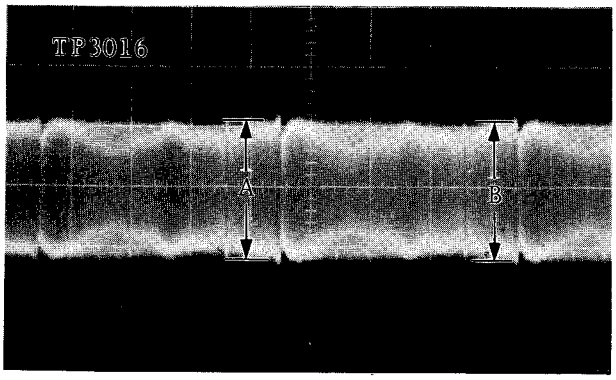


Fig. E20. 0.5V/5msec.div.

5. Adjust DOC NOR, R3069, so that both channel levels "A" and "B" become 1.1 ± 0.1Vp-p.
   If both levels are not the same, adjust R3067 (NOR.MIX).
6. Set the unit in the PAUSE mode.
7. Adjust DOC SS, R3087, so that both channel levels "C" and "D" become 1.4 ± 0.1Vp-p.
   If both levels are not the same, adjust R3085 (SS.MIX).

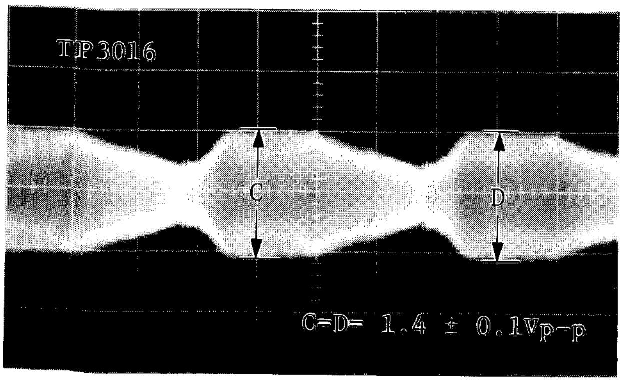


Fig. E21. 0.5V/5msec.div.

## 4-11. Limiter Balance Adjustment

Test Points: TP3016, TP3017
Adjustments: R3122 (BAL 1)
R3147 (BAL 2)

1. Set the SYSTEM switch to the PAL position.
2. Supply a sweep generator signal to TP3006. Use the markers at 2MHz, 3.4MHz and 6MHz.
3. Insert the empty cassette (See Fig. E12) and set the unit in the PLAY mode.
4. Connect a scope to TP3016 and adjust the sweep out level becomes 1Vp-p at 4MHz.
5. Change the probe to TP3017 from TP3016.
6. Adjust BAL 1, R3122, so that the "A" portion of both channels are balanced.
7. Adjust BAL 2, R3147, so that the beat of "B" portion becomes minimum.

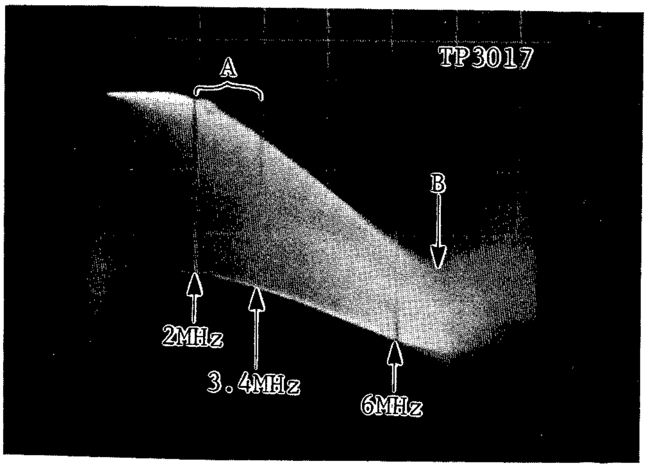


Fig. E22. 0.5V/2msec.div.

## 4-12. Comb Filter Adjustment

Test Point: TP8301
Adjustments: R8386 (PAL COMB)
R8342 (NTSC COMB)

1. Set the SYSTEM switch to the PAL position.
2. Do not supply any video signal to the video input.
3. Set the MODE switch to the COLOUR position.
4. Supply a sweep generator signal to TP8303. Use the marker at 4.43MHz.

5. Connect the scope to TP8301 and set the sweep level to 1.2Vp-p.
6. Adjust PAL COMB, R8386 so that the "A" portion becomes minimum.
7. Set the SYSTEM switch to the NTSC position.
8. Adjust NTSC COMB, R8342 so that the "A" portion becomes minimum.

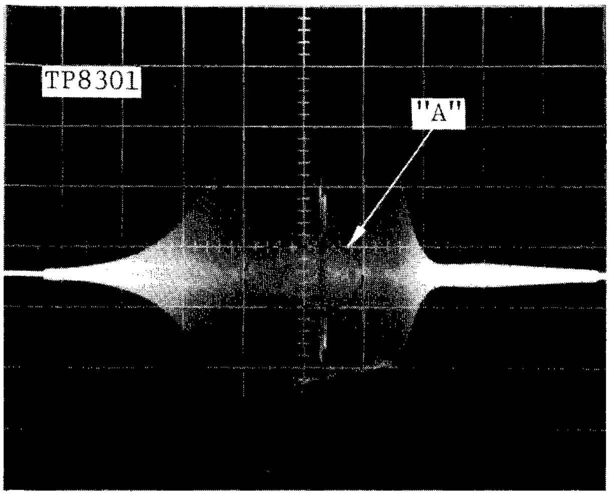


Fig. E23. 0.2V/2msec.div.

## 4-13. Playback Level Adjustment

Test Point: TP3019
Adjustments: R3163 (PB-Y)
R3186 (PB-C)

1. Set the SYSTEM switch to the PAL position.
2. Supply a colour bar signal to the video input and make a short recording.
3. Connect the scope to TP3019.
4. Playback the just recorded portion.

Note:
In the AG-6100, is necessary the above adjustment, the master tape should be made by the AG-6200.

5. Adjust PB-Y, R3163 so that the "Y" portion becomes 2.0 ± 0.05Vp-p.
6. Adjust PB-C, R3186 so that the "CYAN" portion becomes 1.2 ± 0.06Vp-p.

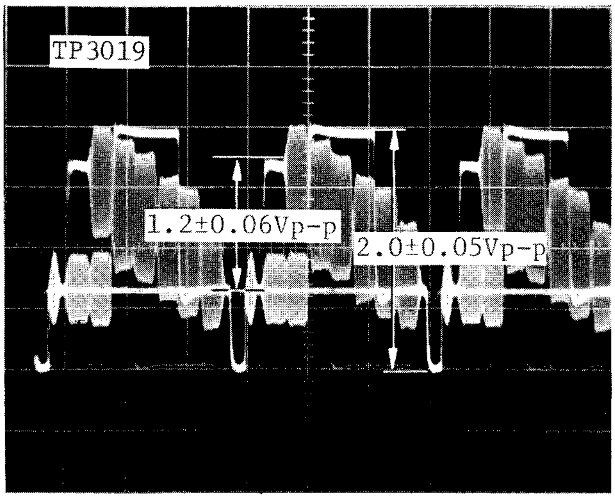


Fig. E24. 0.5V/20μsec.div.

## 5. AUDIO SECTION

Note:
Unless otherwise specified, all test points and controls are located on the Audio (1) C.B.A. and Audio (2) C.B.A.

## 5-1. Audio Playback Frequency Characteristic Adjustments

Test Points: TP4001, TP4002
Adjustments: R4030 (P.B. FREQ. CH1)
R4108 (P.B. FREQ. CH2)

1. Set the DOLBY NR switch to the OUT position and the SYSTEM switch to the NTSC position.
2. Confirm that P.B. CH1 (R4033) and P.B. CH2 (R4110) on the Audio (1) C.B.A. are set the centre position.
3. Connect a scope to TP4001 on the Audio (1) C.B.A.
4. Insert the alignment tape (VFM8080H2) and playback the audio 1kHz (Multi-burst) and 6kHz (Monoscope).
5. Adjust P.B. FREQ. CH1, R4030 on the Audio (1) C.B.A. so that the audio 1kHz and 6kHz become the same level.
6. Change the probe to TP4002 on the Audio (1) C.B.A.
7. Adjust P.B. FREQ. CH2 R4108 on the Audio (1) C.B.A. so that the audio 1kHz and 6kHz become the same level.

## 5-2. Audio Playback Gain Adjustment

Test Points: TP4001, TP4002
Adjustments: R4033 (PB CH1)
R4110 (PB CH2)

1. Set the SYSTEM switch to the NTSC position.
2. Connect a scope to TP4001 on the Audio (1) C.B.A.
3. Insert the alignment tape (VFM8080H2) and playback the multi-burst portion.
4. Adjust PB CH1, R4033 on the Audio (1) C.B.A. so that the level becomes 1.2Vp-p.
5. Change the probe to TP4002 on the Audio (1) C.B.A.
6. Adjust PB CH2, R4110 on the Audio (1) C.B.A. so that the level becomes 1.2Vp-p.

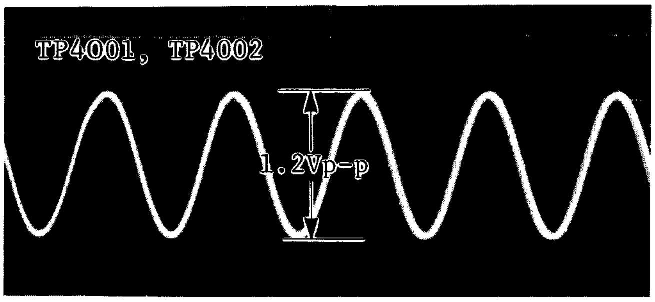


Fig. E25. 0.5V/0.5msec.div.

## 5-3. Audio Meter Adjustment (AG-6200 only)

Test Point: AUDIO LINE OUT
Adjustments: R4347 (METER 1)
R4348 (METER 2)

1. Set the SYSTEM switch to the PAL position.
2. Supply a sine wave signal at -20dB, 1kHz to both channel AUDIO LINE INPUTs.
3. Set the INPUT SELECT switch to LINE, AUDIO LIMITER switch to OFF, DOLBY NR switch to OUT and TC/AUDIO CH2 switch to AUDIO.
4. Connect VTVMs to both channel AUDIO LINE OUTs.
5. Adjust the signal generator output level becomes 500mVrms.
6. Adjust METER 1, R4347 and METER 2, R4348 so that both Audio Meter indicate 0VU.

## 5-4. Audio Bias Current Adjustment (AG-6200 only)

Test Point: A/C Head
Adjustments: R4352 (BIAS 1)
R4351 (BIAS 2)

1. Set the SYSTEM switch to the PAL position.
2. Do not supply any audio signal to AUDIO INPUT.
3. Connect VTVMs to A/C Head as shown in Fig. E26.

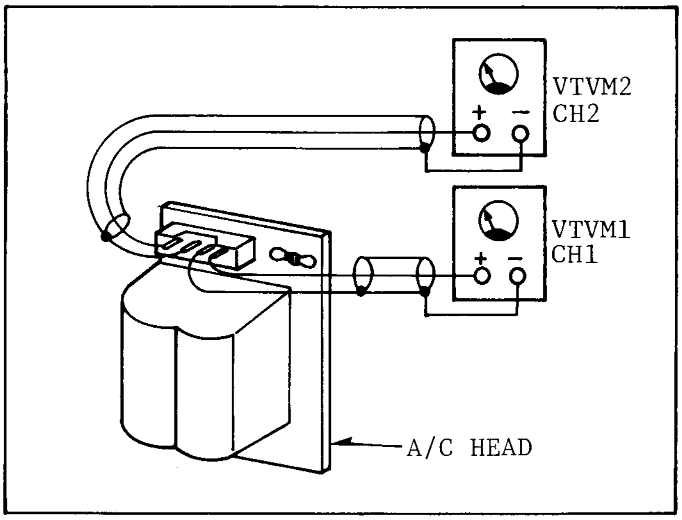


Fig. E26.

4. Adjust BIAS 1, R4352 and BIAS 2, R4351 on the Audio (2) C.B.A. so that both VTVM indicate 2.2 ± 0.1mVrms.

## 5-5. Audio REC Current Adjustment (AG-6200 only)

Test Points: TP4003, TP4004, LINE OUT
Adjustments: R4086 (REC CURR 1)
R4160 (REC CURR 2)

1. Set the SYSTEM switch to the PAL position.
2. Connect VTVMs to the deck as shown in Fig. E27.
3. Supply a sine wave signal at -20dB, 1kHz to the Line Inputs on the rear panel.
4. Adjust the AUDIO LEVELs on the front panel so that the VTVM 1 indicates 500mVrms.
5. Set the unit in the REC mode.

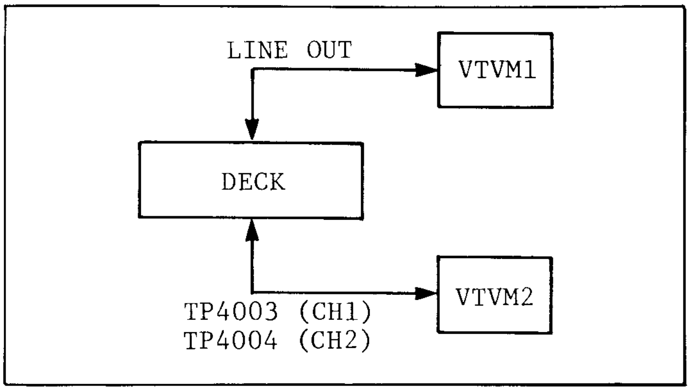


Fig. E27.

6. Adjust REC CURR 1, R4086 (REC CURR 2, R4160) so that the VTVM 2 indicates 450mVrms. Then determine this level as 0dB.
7. Playback the just recorded portion and confirm that the VTVM 1 indicates 0dB.
8. If the VTVM 2 does not indicate 0dB, repeat steps 4 to 6 until that the VTVM 1 and VTVM 2 indicates the same level.

## 5-6. Time Code Meter Adjustment (AG-6200 only)

Test Point: CH2 LEVEL METER
Adjustment: R4254 (TC METER)

1. Set the SYSTEM switch to the PAL position and TC/AUDIO CH2 switch to the TC position.
2. Supply a sine wave signal at 2kHz, 1Vp-p to the TIME CODE INPUT on the rear panel.
3. Set the unit in the REC mode.
4. Confirm that the Time Code lamp on the front panel turns on.
5. Adjust TC METER (R4254) on the Audio (2) C.B.A. so that the CH2 LEVEL METER indicates 0VU.

ORDER NO. VRD-8309-484

# Service Manual

**Vol. 3**

**Panasonic / National VHS**

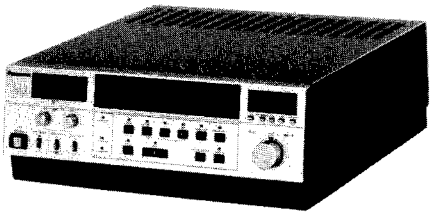
Video Cassette Recorder

# AG-6200 -E -B -EN -A

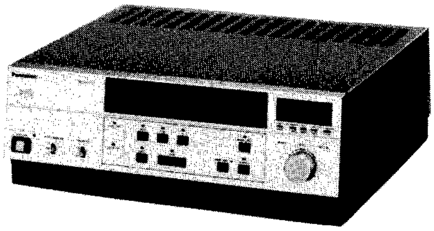
Video Cassette Player

# AG-6100 -E -B -EN -A

## *Block Diagrams*
## *Schematic Diagrams*
## *Circuit Board Diagrams*



**AG-6200**



**AG-6100**

## AG-6200-E/B/EN/A

### SPECIFICATIONS

Power Source: 110/120/220/240V AC, 60/50Hz
Power Consumption: Approx. 60 watts
Television System: CCIR (625 lines, 50 fields)
PAL colour signal
EIA (525 Lines, 60 fields) 4.43MHz
modified NTSC colour signal
Video Recording System: 2 rotary heads, helical scanning system
Luminance: FM azimuth recording
Colour signal: converted subcarrier phase shift recording
Audio Track: 2 tracks
Tape Format: Tape width 12.7mm, high density tape
Tape Speed: 23.39mm/sec. (PAL)
33.35mm/sec. (modified NTSC)
Record/Playback Time: 180mim. with NV-E180 (PAL)
Playback Time: 120min. with NV-T120 (modified NTSC)
FF/REW Time: Less than 4.5min. with NV-E180
Heads: Video: 4 rotary heads
Audio/Control: 1 stationary head
Erase: 1 full track erase
1 audio track erase for audio dubbing
Input Level: Video: TV Monitor connector (8 pins)
1.0Vp-p, 75Ω unbalanced
VIDEO IN connector (BNC)
1.0Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
−20dB, 47kΩ unbalanced
MIC IN jack ×2
−73dB, 4.7kΩ unbalanced
LINE IN jack (Phono) ×2
−20dB, 47kΩ unbalanced
Time code: (Phono)
1.0Vp-p, 10kΩ unbalanced
Output Level: Video: TV Monitor connector (8 pins)
1.0Vp-p, 75Ω unbalanced
VIDEO OUT connector (BNC)
1.0Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
0dB, 600Ω unbalanced
LINE OUT jack (Phono) ×2
−6dB, 600Ω unbalanced
AUDIO MONITOR OUT jack (Phono) 0dB, 600Ω unbalanced
HEADPHONES jack
−20dB ~ −60dB, 8Ω
Time Code: (Phono)
2.4Vp-p, low impedance unbalanced
RF Modulated: Channel 0 or 1, 76 ± 3dBμ (open voltage), 75Ω unbalanced (AG-6200-A)
Video Horizontal Resolution: Colour: more than 240 lines
(on monoscope test pattern) B/W: more than 300 lines
Audio Frequency Response: 50 ~ 10,000Hz
Signal-to-Noise Ratio: Video: B/W: better than 43dB
Colour: better than 43dB
(Rohde & Schwarz noise meter)
Audio: better than 50dB
(Dolby NR IN)

(continued on Next Page.)

**Panasonic / National**

**Matsushita Electric Trading Co., Ltd.**
P.O. Box 288, Central Osaka Japan

(continued from Cover Page.)

Operating
Temperature: 5°C ~ 40°C
Operating Humidity: 35% ~ 80%
Weight: 13.0kg
Dimensions: 430(W) × 392(D) × 158(H) mm
Accessories Supplied: 1 pc. Dust cover
1 pc. Fan Bag.
1 pc. DIN-DIN Cable (AG-6200-A)

Optional Accessories: RF Converter Unit
(Parts) ENC17571 (Europe)
ENC17572 (England)
ENC17506 (Asia)
Remote Controller AG-A600-E/EN
Rack-Mounting Frame AG-M600

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

*Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

# AG-6100-E/B/EN/A

## SPECIFICATIONS

Power Source: 110, 120, 220, 240V AC, 60/50Hz
Power Consumption: Approx. 58 watts
Television System: CCIR (625 lines, 50 fields)
PAL colour signal
EIA (525 lines, 60 fields) 4.43MHz modified NTSC colour signal
Video Playback System: Helical scanning system
Recorded Video Signal: Luminance: FM azimuth recording
Colour signal: converted subcarrier phase shift recording
Audio Track: 2 tracks
Tape Format: Tape width 12.7mm, high density tape
Tape Speed: 23.39mm/sec. (PAL)
33.35mm/sec. (modified NTSC)
Playback Time: 180min. with NV-E180 (PAL)
120min. with NV-T120 (modified NTSC)
FF/REW Time: Less than 4.5min. with NV-E180
Heads: Video: 4 rotary heads
Audio/Control: 1 stationary head
Output Level: Video: TV Monitor connector (8 pins)
1.0Vp-p, 75Ω unbalanced
VIDEO OUT connector (BNC)
1.0Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
0dB, 600Ω unbalanced
LINE OUT jack (Phono) × 2
−6dB, 600Ω unbalanced
AUDIO MONITOR OUT jack (Phono) 0dB, 600Ω unbalanced
HEADPHONES jack
−20dB ~ −60dB, 8Ω
RF Modulated: Channel 0 or 1,
76 ± 3dBμ (open voltage),
75Ω unbalanced
(AG-6100-A)

Video Horizontal Resolution: Colour: more than 240 lines
(on monoscope test pattern) B/W: more than 300 lines
Audio Frequency Response: 50 ~ 10,000Hz
Signal-to-Noise Ratio: Video: B/W: better than 43dB
Colour: better than 43dB
(Rohde & Schwarz noise meter)
Audio: better than 50dB
(Dolby NR IN)
Operating
Temperature: 5°C ~ 40°C
Operating Humidity: 35% ~ 80%
Weight: 12.6kg
Dimensions: 430(W) × 392(D) × 158(H) mm
Accessories Supplied: 1 pc. Dust cover
1 pc. Fan Bag
1 pc. DIN-DIN Cable (AG-6100-A)
Optional Accessories: RF Converter Unit
(Parts) ENC17571 (Europe)
ENC17572 (England)
ENC17506 (Asia)
Remote Controller AG-A600-E/EN
Rack-Mounting Frame AG-M600

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

*** FOR SECAM CAUTIONS:**

1) In some areas, SECAM colour broadcasts can be recorded on the AG-6200, but such cassettes are not interchangeable with cassettes recorded on other PAL-VHS or FRENCH SECAM-VHS sets.
2) When cassettes recorded on the AG-6200 are played back on the FRENCH SECAM-VHS set, the playback is in black and white. Also, cassettes recorded on the FRENCH SECAM-VHS set, or FRENCH SECAM pre-recorded cassettes may be played back in black and white on the AG-6200 and AG-6100.

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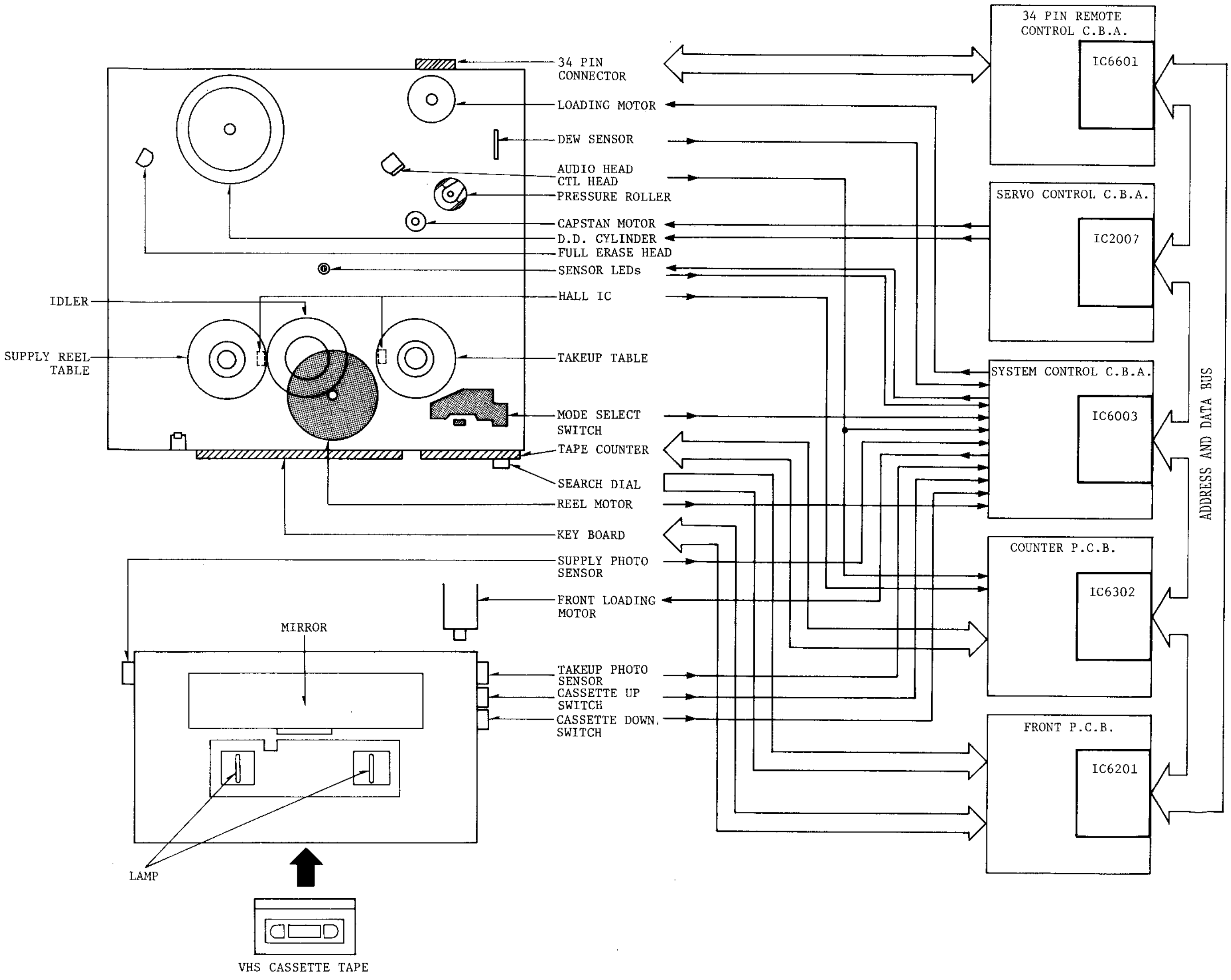
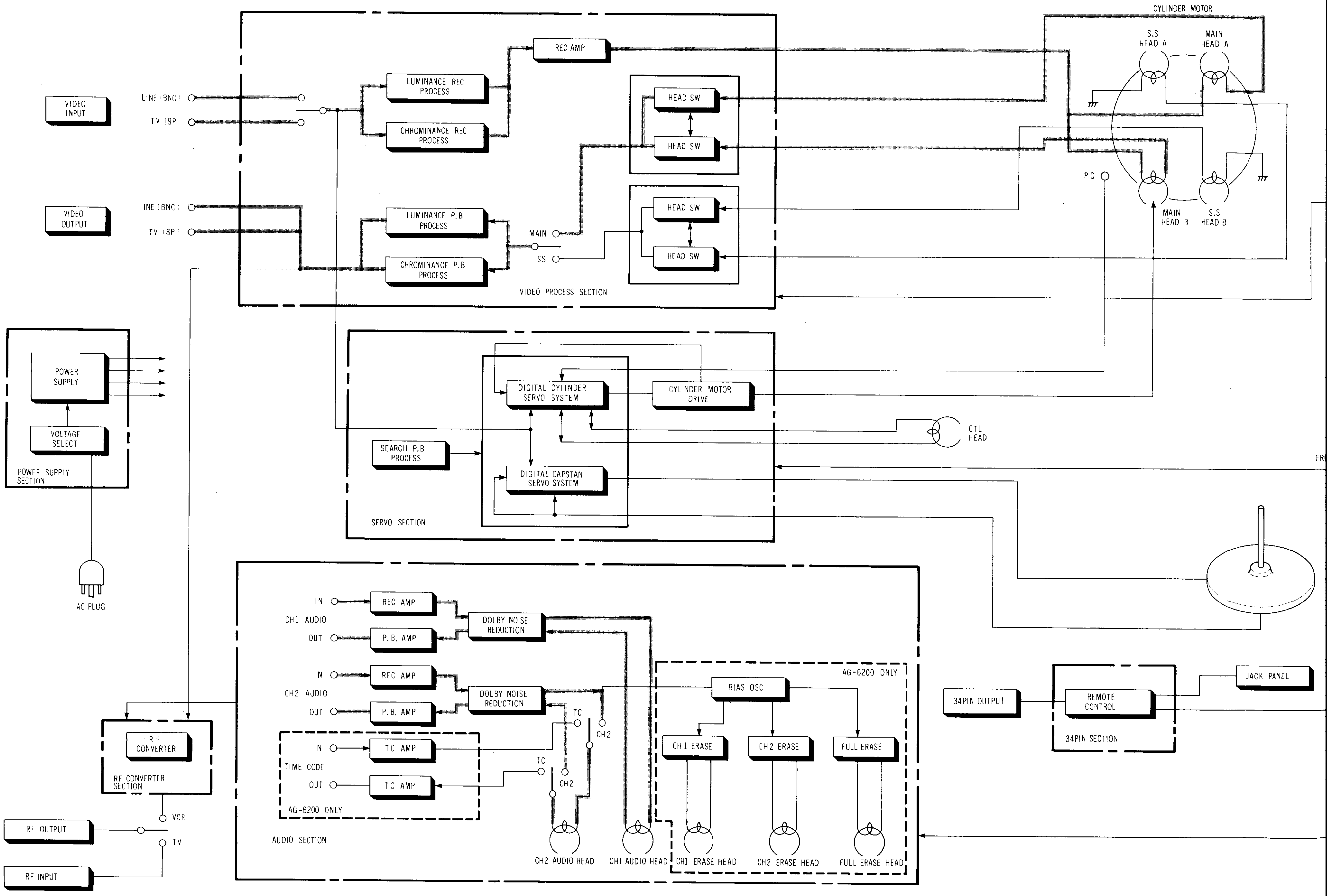
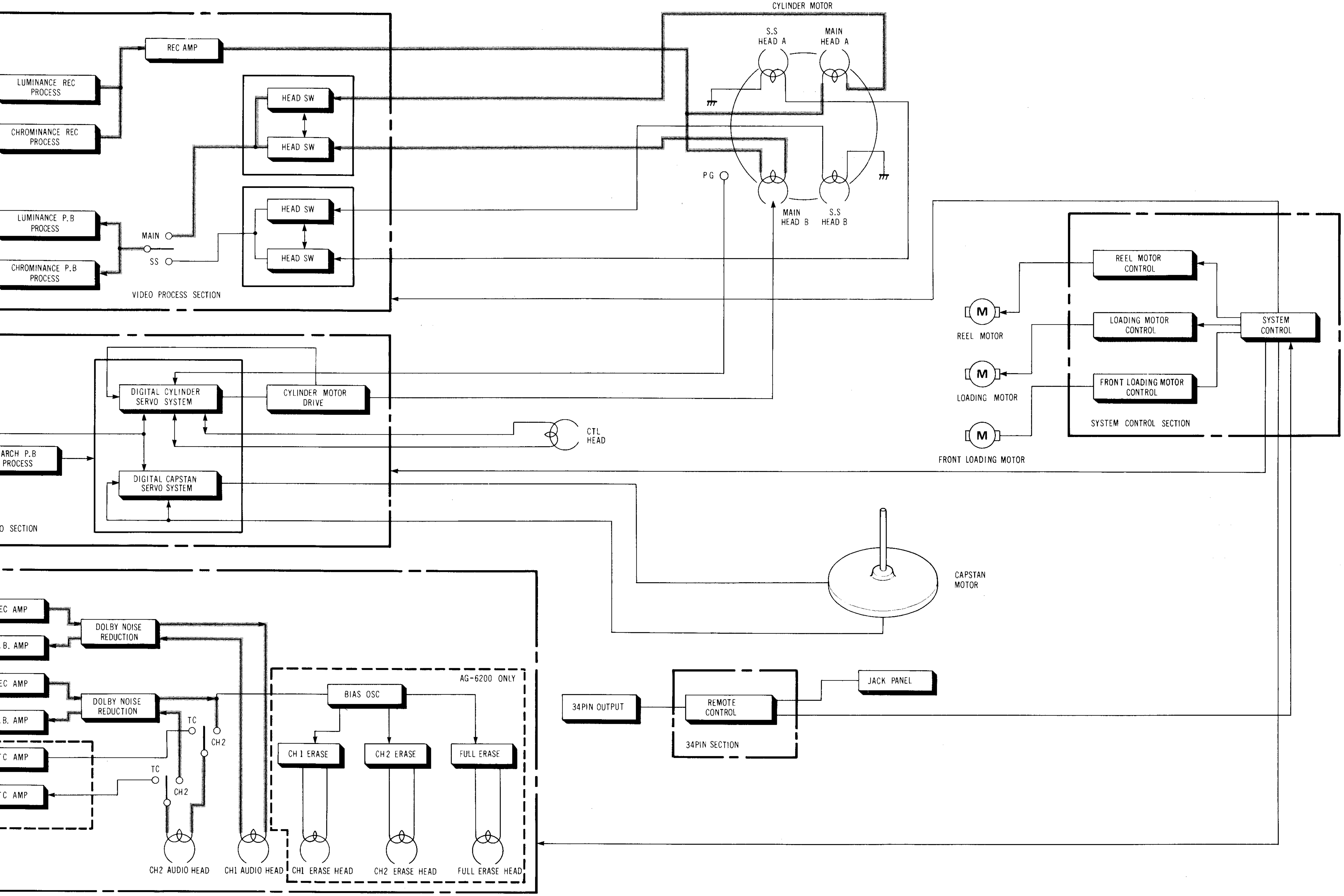
# MAJOR TRANSPORT ELEMENTS


34 PIN REMOTE CONTROL C.B.A.
IC6601
34 PIN CONNECTOR
LOADING MOTOR
DEW SENSOR
AUDIO HEAD
CTL HEAD
PRESSURE ROLLER
SERVO CONTROL C.B.A.
IC2007
CAPSTAN MOTOR
D.D. CYLINDER
FULL ERASE HEAD
SENSOR LEDs
HALL IC
IDLER
SUPPLY REEL TABLE
TAKEUP TABLE
SYSTEM CONTROL C.B.A.
IC6003
MODE SELECT SWITCH
TAPE COUNTER
SEARCH DIAL
REEL MOTOR
KEY BOARD
ADDRESS AND DATA BUS
COUNTER P.C.B.
IC6302
SUPPLY PHOTO SENSOR
FRONT LOADING MOTOR
MIRROR
TAKEUP PHOTO SENSOR
CASSETTE UP SWITCH
CASSETTE DOWN SWITCH
FRONT P.C.B.
IC6201
LAMP
VHS CASSETTE TAPE

# OVERALL BLOCK DIAGRAM

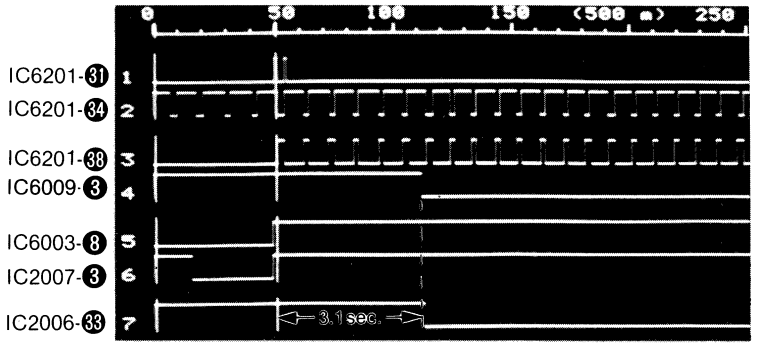

VIDEO INPUT
LINE (BNC)
TV (8P)
VIDEO OUTPUT
LINE (BNC)
TV (8P)
REC AMP
LUMINANCE REC PROCESS
CHROMINANCE REC PROCESS
HEAD SW
HEAD SW
LUMINANCE P.B PROCESS
CHROMINANCE P.B PROCESS
MAIN
SS
HEAD SW
HEAD SW
VIDEO PROCESS SECTION
CYLINDER MOTOR
S.S HEAD A
MAIN HEAD A
PG
MAIN HEAD B
S.S HEAD B
POWER SUPPLY
VOLTAGE SELECT
POWER SUPPLY SECTION
AC PLUG
DIGITAL CYLINDER SERVO SYSTEM
CYLINDER MOTOR DRIVE
SEARCH P.B PROCESS
DIGITAL CAPSTAN SERVO SYSTEM
SERVO SECTION
CTL HEAD
FR
IN
CH1 AUDIO
OUT
REC AMP
P.B. AMP
DOLBY NOISE REDUCTION
IN
CH2 AUDIO
OUT
REC AMP
P.B. AMP
DOLBY NOISE REDUCTION
TC
CH2
IN
TIME CODE
OUT
TC AMP
TC AMP
AG-6200 ONLY
TC
CH2
AG-6200 ONLY
BIAS OSC
CH1 ERASE
CH2 ERASE
FULL ERASE
CH2 AUDIO HEAD
CH1 AUDIO HEAD
CH1 ERASE HEAD
CH2 ERASE HEAD
FULL ERASE HEAD
AUDIO SECTION
R F CONVERTER
RF CONVERTER SECTION
VCR
TV
RF OUTPUT
RF INPUT
34PIN OUTPUT
REMOTE CONTROL
34PIN SECTION
JACK PANEL


CYLINDER MOTOR
S.S HEAD A
MAIN HEAD A
REC AMP
LUMINANCE REC PROCESS
CHROMINANCE REC PROCESS
HEAD SW
HEAD SW
HEAD SW
HEAD SW
LUMINANCE P.B PROCESS
CHROMINANCE P.B PROCESS
MAIN
SS
VIDEO PROCESS SECTION
PG
MAIN HEAD B
S.S HEAD B
REEL MOTOR CONTROL
SYSTEM CONTROL
LOADING MOTOR CONTROL
FRONT LOADING MOTOR CONTROL
SYSTEM CONTROL SECTION
M
REEL MOTOR
M
LOADING MOTOR
M
FRONT LOADING MOTOR
DIGITAL CYLINDER SERVO SYSTEM
CYLINDER MOTOR DRIVE
CTL HEAD
ARCH P.B PROCESS
DIGITAL CAPSTAN SERVO SYSTEM
O SECTION
CAPSTAN MOTOR
EC AMP
DOLBY NOISE REDUCTION
B. AMP
EC AMP
DOLBY NOISE REDUCTION
B. AMP
C AMP
C AMP
TC
CH2
TC
CH2
AG-6200 ONLY
BIAS OSC
CH1 ERASE
CH2 ERASE
FULL ERASE
CH2 AUDIO HEAD
CH1 AUDIO HEAD
CH1 ERASE HEAD
CH2 ERASE HEAD
FULL ERASE HEAD
34PIN OUTPUT
REMOTE CONTROL
34PIN SECTION
JACK PANEL

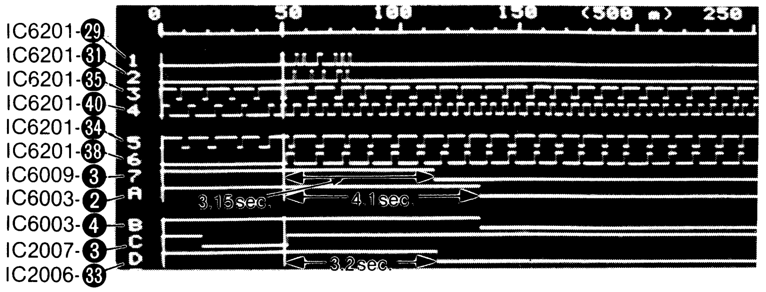
# SYSTEM CONTROL (1) BLOCK DIAGRAM

## • MODE BY MODE TIMING CHARTS

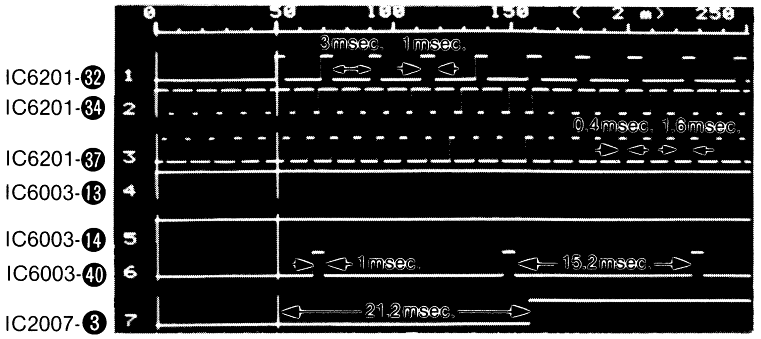
### Ⓐ PLAY MODE



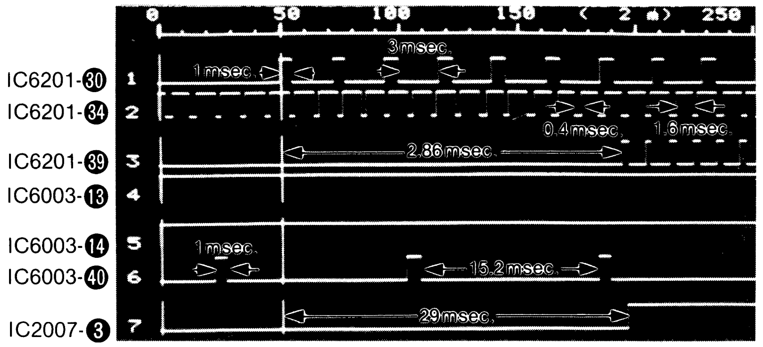
### Ⓑ REC/PLAY MODE

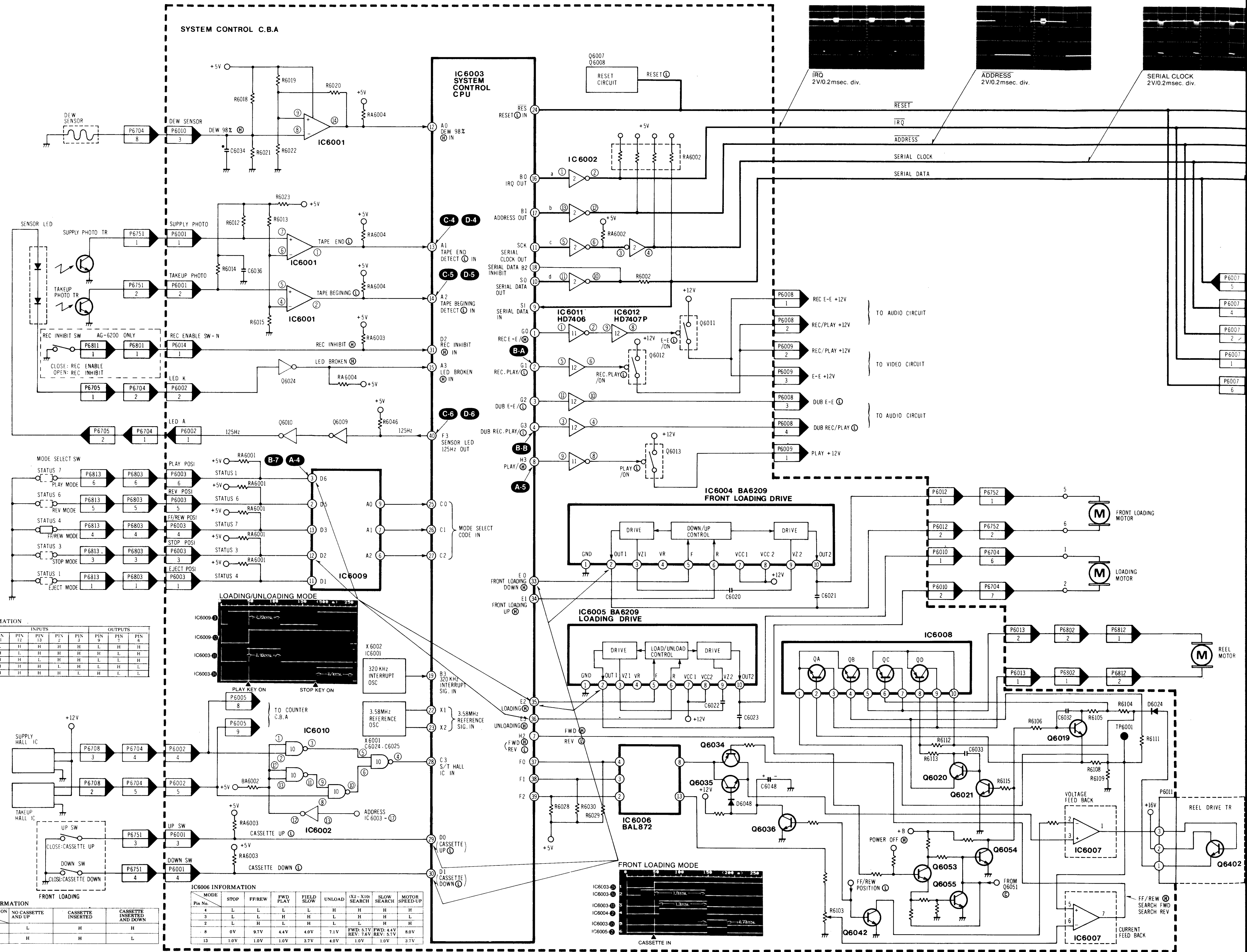


### Ⓒ FF MODE



### Ⓓ REW MODE





SYSTEM CONTROL C.B.A
DEW SENSOR
P6704
P6010
DEW 98% Ⓗ
IC6001
R6018
R6019
R6020
R6021
R6022
C6034
RA6004
+5V
IC6003 SYSTEM CONTROL CPU
A0 DEW 98% Ⓗ IN
SENSOR LED
SUPPLY PHOTO TR
TAKEUP PHOTO TR
SUPPLY PHOTO
TAKEUP PHOTO
P6751
P6001
R6023
R6012
R6013
R6014
R6015
C6036
TAPE END Ⓛ
TAPE BEGINING Ⓛ
A1 TAPE END DETECT Ⓛ IN
A2 TAPE BEGINING DETECT Ⓛ IN
C-4
D-4
C-5
D-5
REC INHIBIT SW
AG-6200 ONLY
P6811
P6801
REC ENABLE SW - N
P6014
CLOSE: REC ENABLE
OPEN: REC INHIBIT
REC INHIBIT Ⓗ
D2 REC INHIBIT Ⓗ IN
RA6003
LED BROKEN Ⓗ
Q6024
LED K
P6705
P6002
A3 LED BROKEN Ⓗ IN
C-6
D-6
LED A
125Hz
Q6010
Q6009
R6046
F3 SENSOR LED 125Hz OUT
MODE SELECT SW
STATUS 7
PLAY MODE
STATUS 6
REV MODE
STATUS 4
FF/REW MODE
STATUS 3
STOP MODE
STATUS 1
EJECT MODE
P6813
P6803
PLAY POSI
REV POSI
FF/REW POSI
STOP POSI
EJECT POSI
P6003
RA6001
B-7
A-4
D6
D5
D3
D2
D1
A0
A1
A2
IC6009
C0
C1
C2
MODE SELECT CODE IN
LOADING/UNLOADING MODE
IC6009-③
IC6009-②
IC6003-⑥
IC6003-⑤
PLAY KEY ON
STOP KEY ON
X6002 IC6001
320KHz INTERRUPT OSC
B3 320KHz INTERRUPT SIG. IN
3.58MHz REFERENCE OSC
X1
X2
3.58MHz REFERENCE SIG. IN
X6001 C6024 · C6025
P6005
TO COUNTER C.B.A
IC6010
SUPPLY HALL IC
TAKEUP HALL IC
+12V
P6708
P6704
BA6002
C3 S/T HALL IC IN
ADDRESS IC6003 - ⑰
IC6002
UP SW
CLOSE: CASSETTE UP
DOWN SW
CLOSE: CASSETTE DOWN
FRONT LOADING
CASSETTE UP Ⓛ
CASSETTE DOWN Ⓛ
D0 CASSETTE UP Ⓛ
D1 CASSETTE DOWN Ⓛ
Q6007
Q6008
RESET CIRCUIT
RESET Ⓛ
RES RESET Ⓛ IN
IRQ
ADDRESS
SERIAL CLOCK
SERIAL DATA
RESET
IRQ 2V/0.2msec. div.
ADDRESS 2V/0.2msec. div.
SERIAL CLOCK 2V/0.2msec. div.
IC6002
RA6002
B0 IRQ OUT
B1 ADDRESS OUT
SCK SERIAL CLOCK OUT
SERIAL DATA INHIBIT B2
S0 SERIAL DATA OUT
S1 SERIAL DATA IN
R6002
IC6011 HD7406
IC6012 HD7407P
G0 REC E-E Ⓗ
G1 REC. PLAY Ⓛ
G2 DUB E-E Ⓛ
G3 DUB REC. PLAY Ⓛ
H3 PLAY Ⓛ
B-A
B-B
A-5
Q6011
Q6012
Q6013
E-E Ⓗ /ON
REC. PLAY Ⓛ /ON
PLAY Ⓛ /ON
P6008
P6009
REC E-E +12V
REC/PLAY +12V
E-E +12V
DUB E-E Ⓛ
DUB REC/PLAY Ⓛ
PLAY +12V
TO AUDIO CIRCUIT
TO VIDEO CIRCUIT
P6007
IC6004 BA6209 FRONT LOADING DRIVE
DRIVE
DOWN/UP CONTROL
GND
OUT 1
VZ1
VR
F
R
VCC 1
VCC 2
VZ 2
OUT 2
C6020
C6021
E0 FRONT LOADING DOWN Ⓗ
E1 FRONT LOADING UP Ⓗ
IC6005 BA6209 LOADING DRIVE
LOAD/UNLOAD CONTROL
C6022
C6023
E2 LOADING Ⓗ
E3 UNLOADING Ⓗ
H2 FWD Ⓗ REV Ⓛ
F0
F1
F2
IC6006 BAL872
R6028
R6030
R6029
Q6034
Q6035
Q6036
C6048
D6048
P6012
P6752
P6010
FRONT LOADING MOTOR
LOADING MOTOR
IC6008
QA
QB
QC
QD
P6013
P6802
P6812
REEL MOTOR
R6104
D6024
R6105
R6106
C6032
Q6019
TP6001
R6111
R6112
R6113
C6033
Q6020
R6108
R6109
Q6021
R6115
VOLTAGE FEED BACK
IC6007
P6011
REEL DRIVE TR
Q6402
+16V
+B
POWER OFF Ⓗ
Q6053
Q6054
Q6055
FF/REW POSITION Ⓛ
FROM Q6051 Ⓒ
R6103
Q6042
FF/REW Ⓗ SEARCH FWD SEARCH REV
CURRENT FEED BACK
FRONT LOADING MODE
IC6003-㉝
IC6003-㉞
IC6004-②
IC6005-②
CASSETTE IN

IC6009 INFORMATION

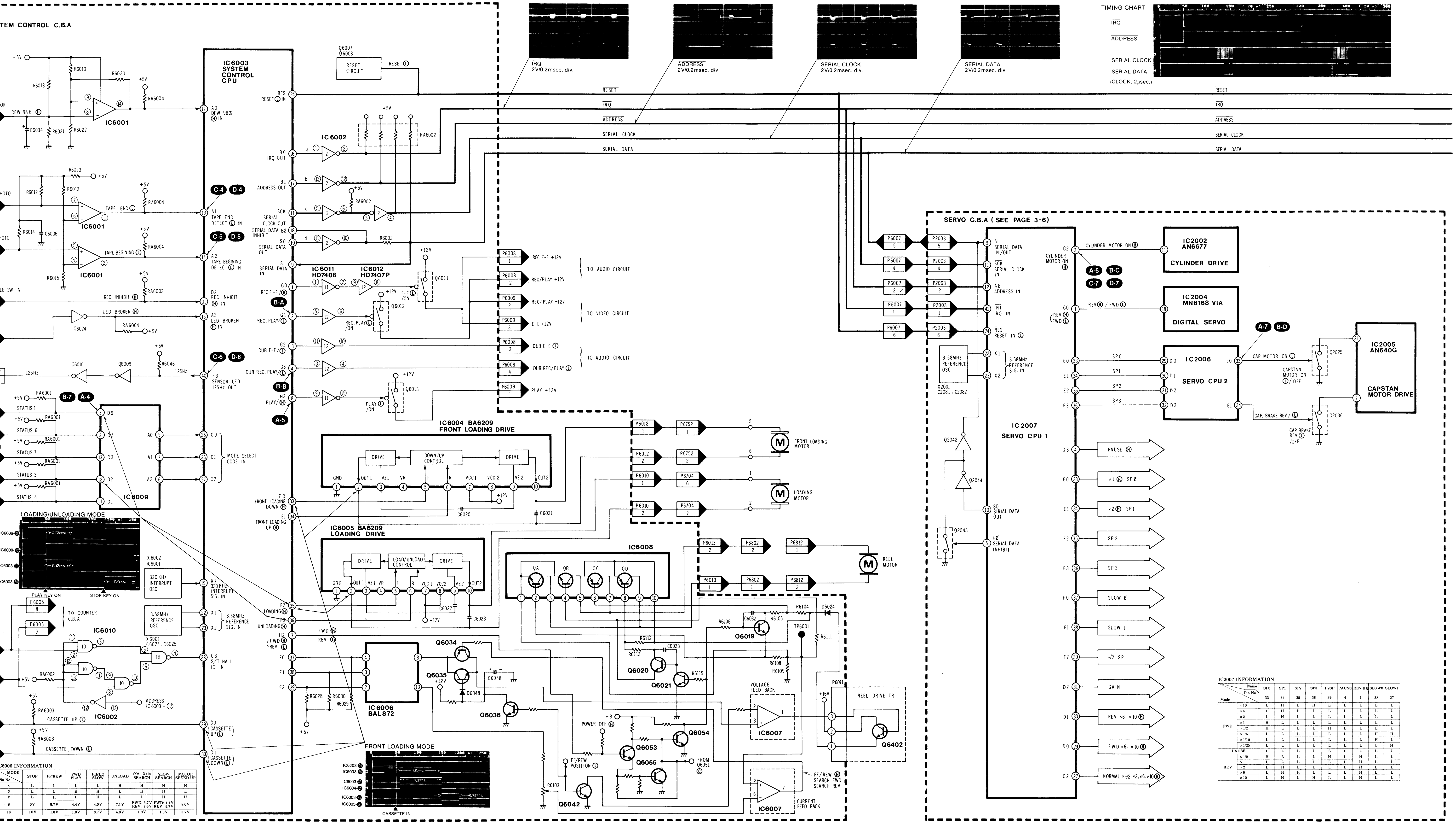
| MODE | INPUTS |  |  |  |  | OUTPUTS |  |  |
|---|---|---|---|---|---|---|---|---|
|  | PIN 11 | PIN 12 | PIN 13 | PIN 2 | PIN 3 | PIN 9 | PIN 7 | PIN 6 |
| EJECT | L | H | H | H | H | L | H | H |
| STOP | H | L | H | H | H | H | L | H |
| FF REW | H | H | L | H | H | L | L | H |
| REV | H | H | H | L | H | L | H | L |
| PLAY | H | H | H | H | L | H | L | L |

IC6003 INFORMATION

| CONDITION / PIN NO. | NO CASSETTE AND UP | CASSETTE INSERTED | CASSETTE INSERTED AND DOWN |
|---|---|---|---|
| 29 | L | H | H |
| 30 | H | H | L |

IC6006 INFORMATION

| MODE / Pin No. | STOP | FF/REW | FWD PLAY | FIELD SLOW | UNLOAD | (X2 ~ X10) SEARCH | SLOW SEARCH | MOTOR SPEED-UP |
|---|---|---|---|---|---|---|---|---|
| 4 | L | L | L | L | H | H | H | H |
| 3 | L | L | H | H | L | H | H | L |
| 2 | L | H | L | H | L | L | H | H |
| 8 | 0V | 9.7V | 4.4V | 4.0V | 7.1V | FWD: 5.7V<br>REV: 7.6V | FWD: 4.4V<br>REV: 5.7V | 8.0V |
| 13 | 1.0V | 1.0V | 1.0V | 3.7V | 4.0V | 1.0V | 1.0V | 3.7V |


TEM CONTROL C.B.A
IC6003 SYSTEM CONTROL CPU
IC6001
IC6002
IC6009
IC6010
IC6011 HD7406
IC6012 HD7407P
IC6004 BA6209 FRONT LOADING DRIVE
IC6005 BA6209 LOADING DRIVE
IC6006 BAL872
IC6007
IC6008
Q6007 Q6008 RESET CIRCUIT
DEW 98% Ⓗ
TAPE END Ⓛ
TAPE BEGINING Ⓛ
REC INHIBIT Ⓗ
LED BROKEN Ⓗ
125Hz
STATUS 1
STATUS 6
STATUS 7
STATUS 3
STATUS 4
LOADING/UNLOADING MODE
PLAY KEY ON
STOP KEY ON
320 KHz INTERRUPT OSC
3.58MHz REFERENCE OSC
TO COUNTER C.B.A
CASSETTE UP Ⓛ
CASSETTE DOWN Ⓛ
REC E-E +12V
REC/PLAY +12V
E-E +12V
DUB E-E Ⓛ
DUB REC/PLAY Ⓛ
PLAY +12V
TO AUDIO CIRCUIT
TO VIDEO CIRCUIT
FRONT LOADING MOTOR
LOADING MOTOR
REEL MOTOR
FRONT LOADING MODE
CASSETTE IN
VOLTAGE FEED BACK
CURRENT FEED BACK
REEL DRIVE TR
POWER OFF Ⓗ
FF/REW POSITION Ⓛ
FROM Q6051
IRQ 2V/0.2msec. div.
ADDRESS 2V/0.2msec. div.
SERIAL CLOCK 2V/0.2msec. div.
SERIAL DATA 2V/0.2msec. div.
TIMING CHART
IRQ
ADDRESS
SERIAL CLOCK
SERIAL DATA
(CLOCK: 2μsec.)
RESET
SERVO C.B.A (SEE PAGE 3-6)
IC2002 AN6677 CYLINDER DRIVE
IC2004 MN6168 VIA DIGITAL SERVO
IC2005 AN640G CAPSTAN MOTOR DRIVE
IC2006 SERVO CPU 2
IC 2007 SERVO CPU 1
CYLINDER MOTOR ON Ⓗ
REV Ⓗ / FWD Ⓛ
CAP. MOTOR ON Ⓛ
CAP. BRAKE REV / Ⓛ
PAUSE Ⓗ
×1 Ⓗ SP0
×2 Ⓗ SP1
SP 2
SP 3
SLOW 0
SLOW 1
1/2 SP
GAIN
REV ×6, ×10 Ⓗ
FWD ×6, ×10 Ⓗ
NORMAL ×1/2, ×2, ×6, ×10 Ⓗ

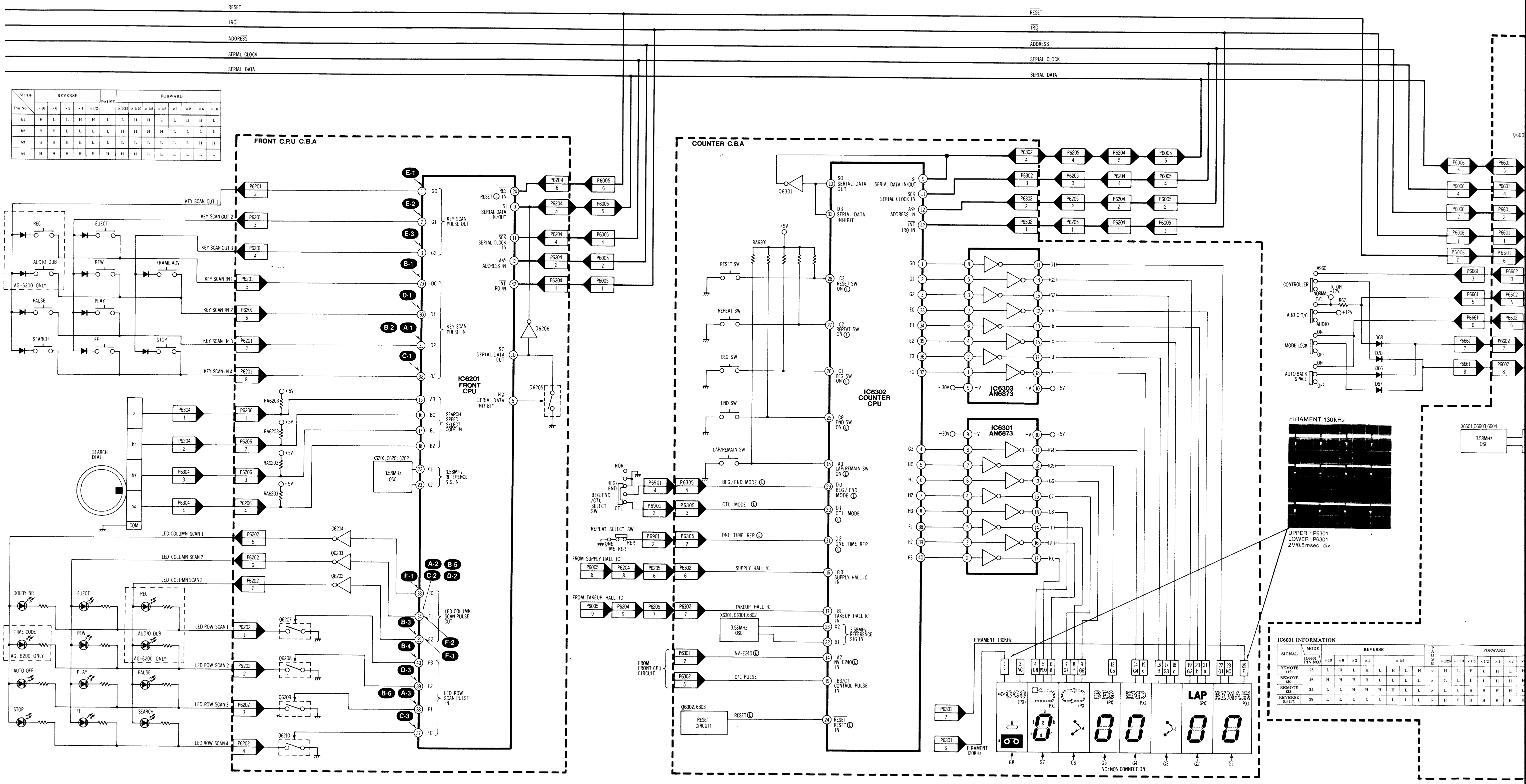
C6006 INFORMATION

| MODE / Pin No. | STOP | FF/REW | FWD PLAY | FIELD SLOW | UNLOAD | (X2 ~ X10) SEARCH | SLOW SEARCH | MOTOR SPEED-UP |
|---|---|---|---|---|---|---|---|---|
| 4 | L | L | L | L | H | H | H | H |
| 3 | L | L | H | H | L | H | H | L |
| 2 | L | H | L | H | L | L | H | H |
| 8 | 0V | 9.7V | 4.4V | 4.0V | 7.1V | FWD: 5.7V<br>REV: 7.6V | FWD: 4.4V<br>REV: 5.7V | 8.0V |
| 13 | 1.0V | 1.0V | 1.0V | 3.7V | 4.0V | 1.0V | 1.0V | 3.7V |

IC2007 INFORMATION

| Mode | Name | SP0 | SP1 | SP2 | SP3 | 1/2SP | PAUSE | REV (H) | SLOW0 | SLOW1 |
|---|---|---|---|---|---|---|---|---|---|---|
|  | Pin No. | 33 | 34 | 35 | 36 | 39 | 4 | 1 | 38 | 37 |
| FWD | ×10 | L | H | L | H | L | L | L | L | L |
|  | ×6 | L | H | H | L | L | L | L | L | L |
|  | ×2 | L | H | L | L | L | L | L | L | L |
|  | ×1 | H | L | L | L | L | L | L | L | L |
|  | ×1/2 | H | L | L | L | H | L | L | L | L |
|  | ×1/5 | L | L | L | L | L | L | L | H | H |
|  | ×1/10 | L | L | L | L | L | L | L | H | L |
|  | ×1/25 | L | L | L | L | L | L | L | L | H |
| PAUSE |  | L | L | L | L | L | H | L | L | L |
| REV | ×1/2 | H | L | L | L | H | L | H | L | L |
|  | ×1 | L | L | L | L | L | L | H | L | L |
|  | ×2 | L | H | L | L | L | L | H | L | L |
|  | ×6 | L | H | H | L | L | L | H | L | L |
|  | ×10 | L | H | L | H | L | L | H | L | L |

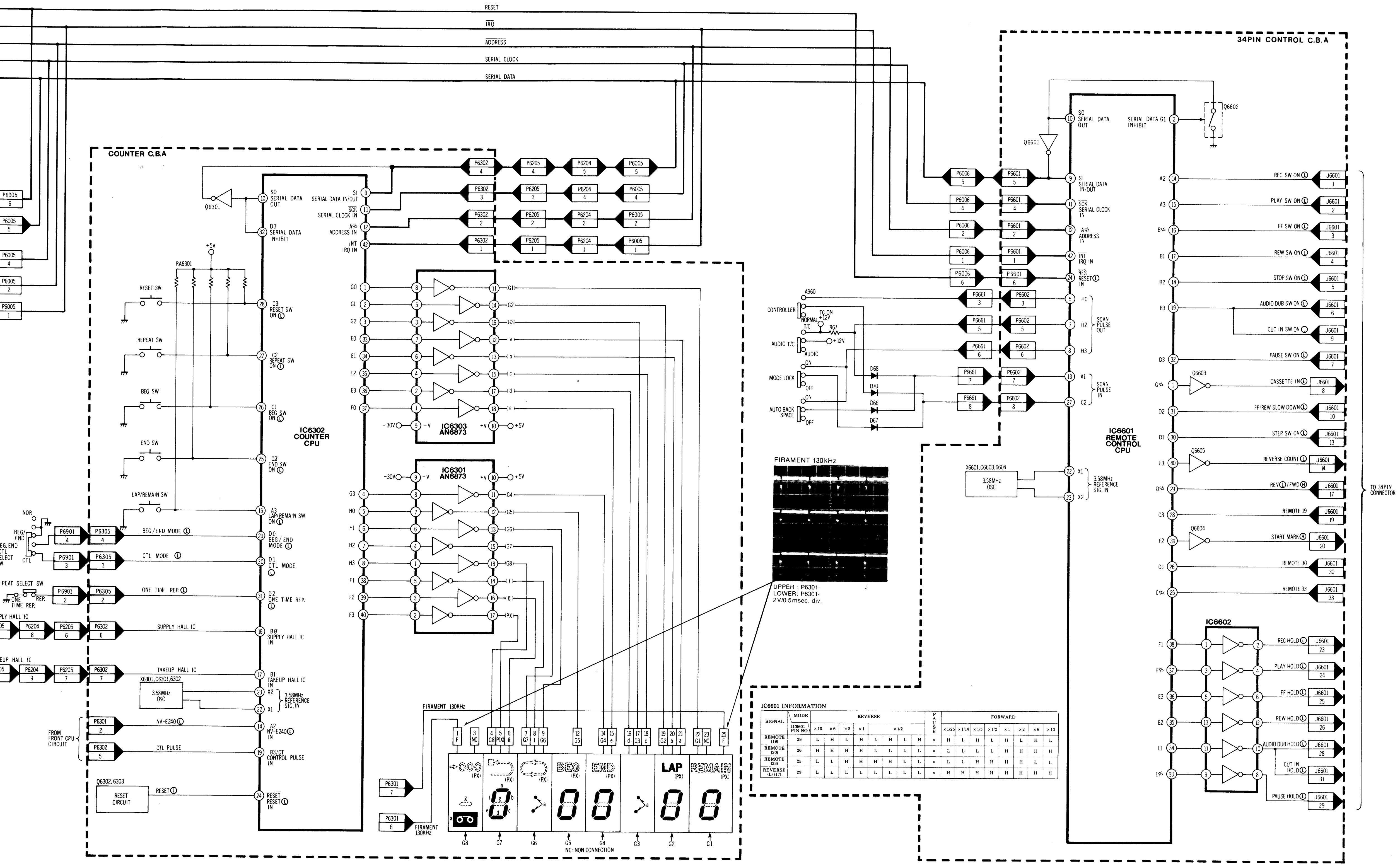
# SYSTEM CONTROL (2) BLOCK DIAGRAM


RESET
IRQ
ADDRESS
SERIAL CLOCK
SERIAL DATA
FRONT C.P.U C.B.A
IC6201
FRONT
CPU
KEY SCAN OUT 1
KEY SCAN OUT 2
KEY SCAN OUT 3
KEY SCAN IN 1
KEY SCAN IN 2
KEY SCAN IN 3
KEY SCAN IN 4
REC
EJECT
AUDIO DUB
REW
FRAME ADV
AG-6200 ONLY
PAUSE
PLAY
SEARCH
FF
STOP
P6201
P6204
P6005
P6206
P6304
P6202
G0
G1
G2
KEY SCAN PULSE OUT
D0
D1
D2
D3
KEY SCAN PULSE IN
A3
B0
B1
B2
SEARCH SPEED SELECT CODE IN
X6201, C6201, 6202
3.58MHz OSC
X1
X2
3.58MHz REFERENCE SIG.IN
RES
RESET Ⓛ IN
SI
SERIAL DATA IN/OUT
SCK
SERIAL CLOCK IN
AΦ
ADDRESS IN
INT
IRQ IN
SO
SERIAL DATA OUT
HØ
SERIAL DATA INHIBIT
Q6206
Q6205
E-1
E-2
E-3
B-1
D-1
B-2
A-1
C-1
A-2
B-5
F-1
C-2
D-2
B-3
B-4
D-3
B-6
A-3
C-3
F-2
F-3
+5V
RA6203
SEARCH DIAL
b1
b2
b3
b4
COM
LED COLUMN SCAN 1
LED COLUMN SCAN 2
LED COLUMN SCAN 3
Q6204
Q6203
Q6202
E0
E1
E2
F3
F2
F1
F0
LED COLUMN SCAN PULSE OUT
LED ROW SCAN PULSE IN
LED ROW SCAN 1
LED ROW SCAN 2
LED ROW SCAN 3
LED ROW SCAN 4
Q6207
Q6208
Q6209
Q6210
DOLBY NR
TIME CODE
AUTO OFF
AG-6200 ONLY
COUNTER C.B.A
IC6302
COUNTER
CPU
Q6301
SO
SERIAL DATA OUT
D3
SERIAL DATA INHIBIT
SI
SERIAL DATA IN/OUT
SCK
SERIAL CLOCK IN
AΦ
ADDRESS IN
INT
IRQ IN
RA6301
RESET SW
REPEAT SW
BEG SW
END SW
LAP/REMAIN SW
C3
RESET SW ON Ⓛ
C2
REPEAT SW ON Ⓛ
C1
BEG SW ON Ⓛ
CØ
END SW ON Ⓛ
A3
LAP/REMAIN SW ON Ⓛ
NOR
BEG/END
BEG.END /CTL SELECT SW
CTL
P6901
P6305
BEG/END MODE Ⓛ
D0
BEG/END MODE Ⓛ
CTL MODE Ⓛ
D1
CTL MODE Ⓛ
REPEAT SELECT SW
ONE TIME REP.
REP.
ONE TIME REP. Ⓛ
D2
ONE TIME REP. Ⓛ
FROM SUPPLY HALL IC
SUPPLY HALL IC
BØ
SUPPLY HALL IC IN
FROM TAKEUP HALL IC
TAKEUP HALL IC
B1
TAKEUP HALL IC IN
P6205
P6302
X6301, C6301, 6302
3.58MHz OSC
X2
X1
3.58MHz REFERENCE SIG.IN
FROM FRONT CPU CIRCUIT
P6301
NV-E240 Ⓛ
A2
NV-E240 Ⓛ IN
CTL PULSE
B3/CT
CONTROL PULSE IN
Q6302, 6303
RESET CIRCUIT
RESET Ⓛ
RESET
RESET Ⓛ IN
G0
G1
G2
E0
E1
E2
E3
F0
G3
H0
H1
H2
H3
F1
F2
F3
IC6303
AN6873
IC6301
AN6873
-30V
-V
+V
+5V
FIRAMENT 130KHz
NC
PX
BEG
END
LAP
REMAIN
G8
G7
G6
G5
G4
G3
G2
G1
NC: NON CONNECTION
P6006
P6601
A960
CONTROLLER
TC ON +12V
NORMAL
T/C
R67
AUDIO T/C
+12V
AUDIO
MODE LOCK
ON
OFF
AUTO BACK SPACE
D68
D70
D66
D67
P6661
P6602
X6601, C6603, 6604
3.58MHz OSC
FIRAMENT 130kHz
UPPER : P6301-
LOWER: P6301-
2V/0.5msec. div.

| MODE / Pin No. | REVERSE ×10 | REVERSE ×6 | REVERSE ×2 | REVERSE ×1 | REVERSE ×1/2 | PAUSE | FORWARD ×1/25 | FORWARD ×1/10 | FORWARD ×1/5 | FORWARD ×1/2 | FORWARD ×1 | FORWARD ×2 | FORWARD ×6 | FORWARD ×10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| b1 | H | L | L | H | H | L | L | H | H | L | L | H | H | L |
| b2 | H | H | L | L | L | L | H | H | H | H | L | L | L | L |
| b3 | H | H | H | H | L | L | L | L | L | L | L | L | H | H |
| b4 | H | H | H | H | H | H | H | H | L | L | L | L | L | L |

IC6601 INFORMATION

| SIGNAL | MODE / IC6601 PIN NO. | REVERSE ×10 | REVERSE ×6 | REVERSE ×2 | REVERSE ×1 | REVERSE ×1/2 | | | | PAUSE | FORWARD ×1/25 | FORWARD ×1/10 | FORWARD ×1/5 | FORWARD ×1/2 | FORWARD ×1 | FORWARD ×2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REMOTE (19) | 28 | L | H | L | H | L | H | L | H | × | H | L | H | L | H | L |
| REMOTE (30) | 26 | H | H | H | H | L | L | L | L | × | L | L | L | L | H | H |
| REMOTE (33) | 25 | L | L | H | H | H | H | L | L | × | L | L | H | H | H | H |
| REVERSE (L) (17) | 29 | L | L | L | L | L | L | L | L | × | H | H | H | H | H | H |


RESET
IRQ
ADDRESS
SERIAL CLOCK
SERIAL DATA
COUNTER C.B.A
34PIN CONTROL C.B.A
IC6302
COUNTER
CPU
IC6303
AN6873
IC6301
AN6873
IC6601
REMOTE
CONTROL
CPU
IC6602
Q6301
Q6601
Q6602
Q6603
Q6604
Q6605
RA6301
+5V
RESET SW
REPEAT SW
BEG SW
END SW
LAP/REMAIN SW
SO SERIAL DATA OUT
SI SERIAL DATA IN/OUT
SCK SERIAL CLOCK IN
A1/3 ADDRESS IN
INT IRQ IN
D3 SERIAL DATA INHIBIT
C3 RESET SW ON Ⓛ
C2 REPEAT SW ON Ⓛ
C1 BEG SW ON Ⓛ
C0 END SW ON Ⓛ
A3 LAP/REMAIN SW ON Ⓛ
D0 BEG/END MODE Ⓛ
D1 CTL MODE
D2 ONE TIME REP. Ⓛ
B0 SUPPLY HALL IC IN
B1 TAKEUP HALL IC IN
X2 X1 3.58MHz REFERENCE SIG.IN
A2 NV-E240 Ⓛ IN
B3/CT CONTROL PULSE IN
RESET RESET Ⓛ IN
BEG/END MODE Ⓛ
CTL MODE Ⓛ
ONE TIME REP. Ⓛ
SUPPLY HALL IC
TAKEUP HALL IC
X6301, C6301, 6302
3.58MHz OSC
NV-E240 Ⓛ
CTL PULSE
FROM FRONT CPU CIRCUIT
Q6302, 6303
RESET CIRCUIT
RESET Ⓛ
P6005
P6006
P6204
P6205
P6301
P6302
P6305
P6601
P6602
P6661
P6901
J6601
FIRAMENT 130KHz
BEG
END
LAP
REMAIN
(PX)
G8 G7 G6 G5 G4 G3 G2 G1
NC: NON CONNECTION
CONTROLLER
A960
TC ON
NORMAL
T/C
AUDIO T/C
AUDIO
R67
+12V
MODE LOCK
ON
OFF
AUTO BACK SPACE
D68
D70
D66
D67
H0 H2 H3 SCAN PULSE OUT
A1 C2 SCAN PULSE IN
RES RESET Ⓛ IN
SERIAL DATA G1 INHIBIT
X6601, C6603, 6604
3.58MHz OSC
3.58MHz REFERENCE SIG. IN
REC SW ON Ⓛ
PLAY SW ON Ⓛ
FF SW ON Ⓛ
REW SW ON Ⓛ
STOP SW ON Ⓛ
AUDIO DUB SW ON Ⓛ
CUT IN SW ON Ⓛ
PAUSE SW ON Ⓛ
CASSETTE IN Ⓛ
FF REW SLOW DOWN Ⓛ
STEP SW ON Ⓛ
REVERSE COUNT Ⓛ
REV Ⓛ / FWD Ⓗ
REMOTE 19
START MARK Ⓗ
REMOTE 30
REMOTE 33
REC HOLD Ⓛ
PLAY HOLD Ⓛ
FF HOLD Ⓛ
REW HOLD Ⓛ
AUDIO DUB HOLD Ⓛ
CUT IN HOLD Ⓛ
PAUSE HOLD Ⓛ
TO 34PIN CONNECTOR

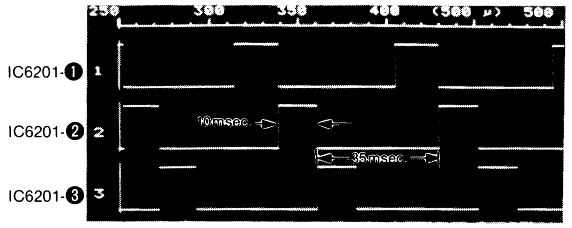
FIRAMENT 130kHz

UPPER : P6301-
LOWER: P6301-
2V/0.5msec. div.

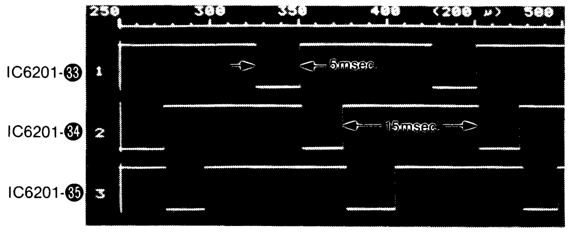
IC6601 INFORMATION

| SIGNAL | MODE / IC6601 PIN NO. | REVERSE | | | | | | | | PAUSE | FORWARD | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ×10 | ×6 | ×2 | ×1 | ×1/2 | | | | | ×1/25 | ×1/10 | ×1/5 | ×1/2 | ×1 | ×2 | ×6 | ×10 |
| REMOTE (19) | 28 | L | H | L | H | L | H | L | H | × | H | L | H | L | H | L | H | L |
| REMOTE (30) | 26 | H | H | H | H | L | L | L | L | × | L | L | L | L | H | H | H | H |
| REMOTE (33) | 25 | L | L | H | H | H | H | L | L | × | L | L | H | H | H | H | L | L |
| REVERSE (L) (17) | 29 | L | L | L | L | L | L | L | L | × | H | H | H | H | H | H | H | H |

Ⓔ LED SCAN PULSE



Ⓕ KEY SCAN PULSE



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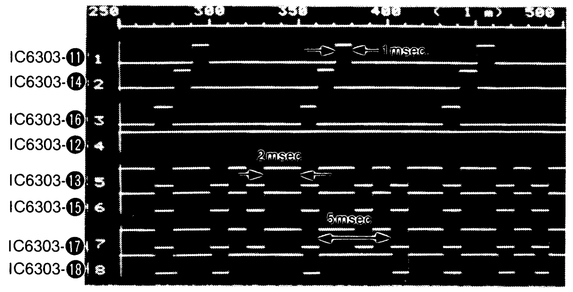

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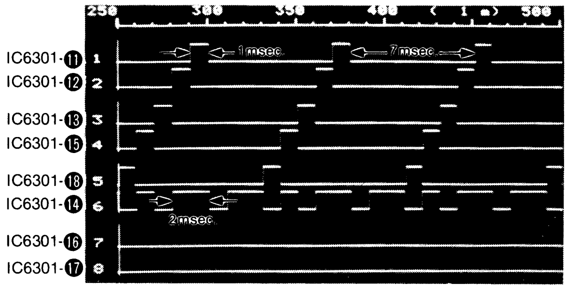
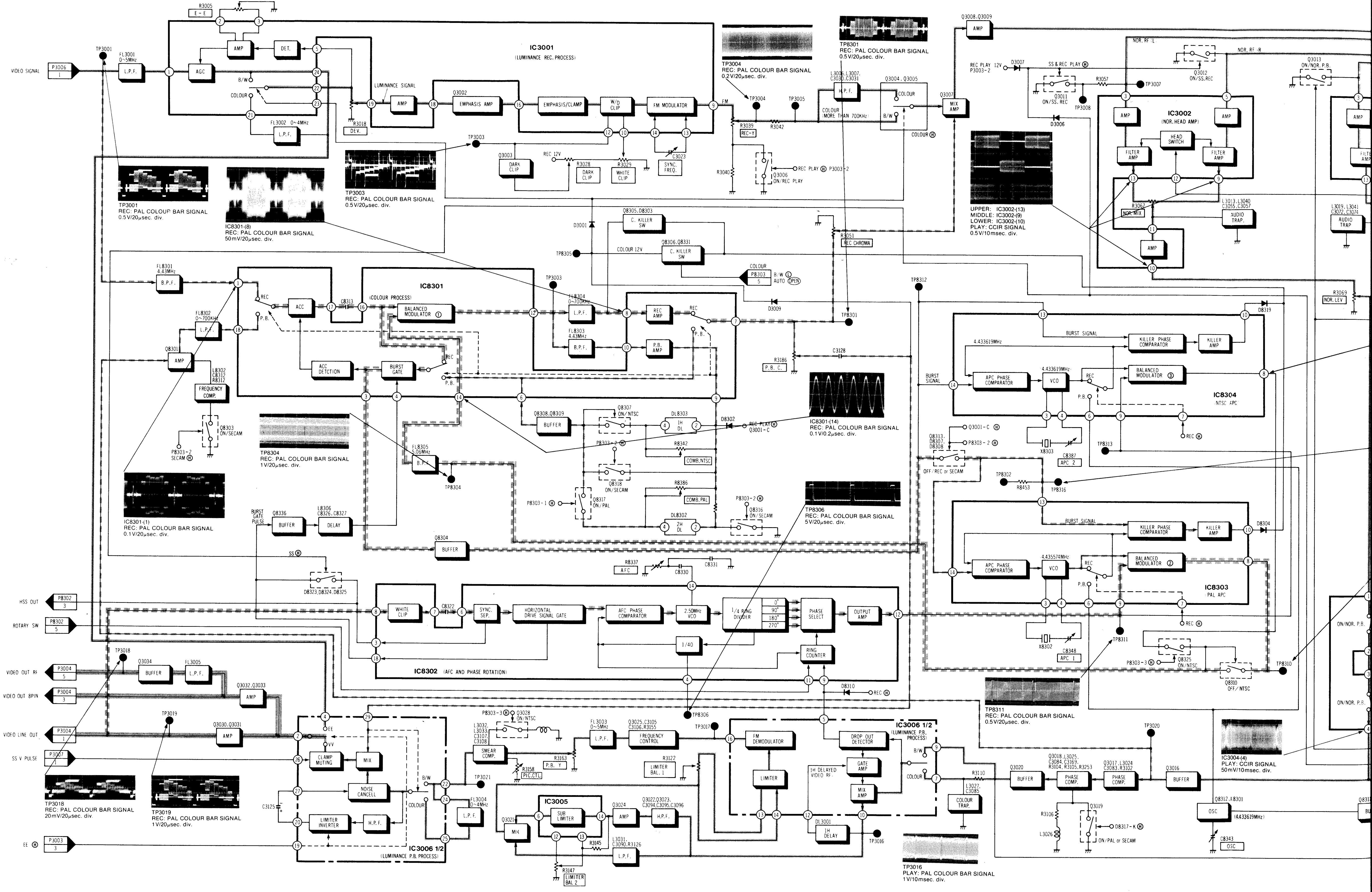
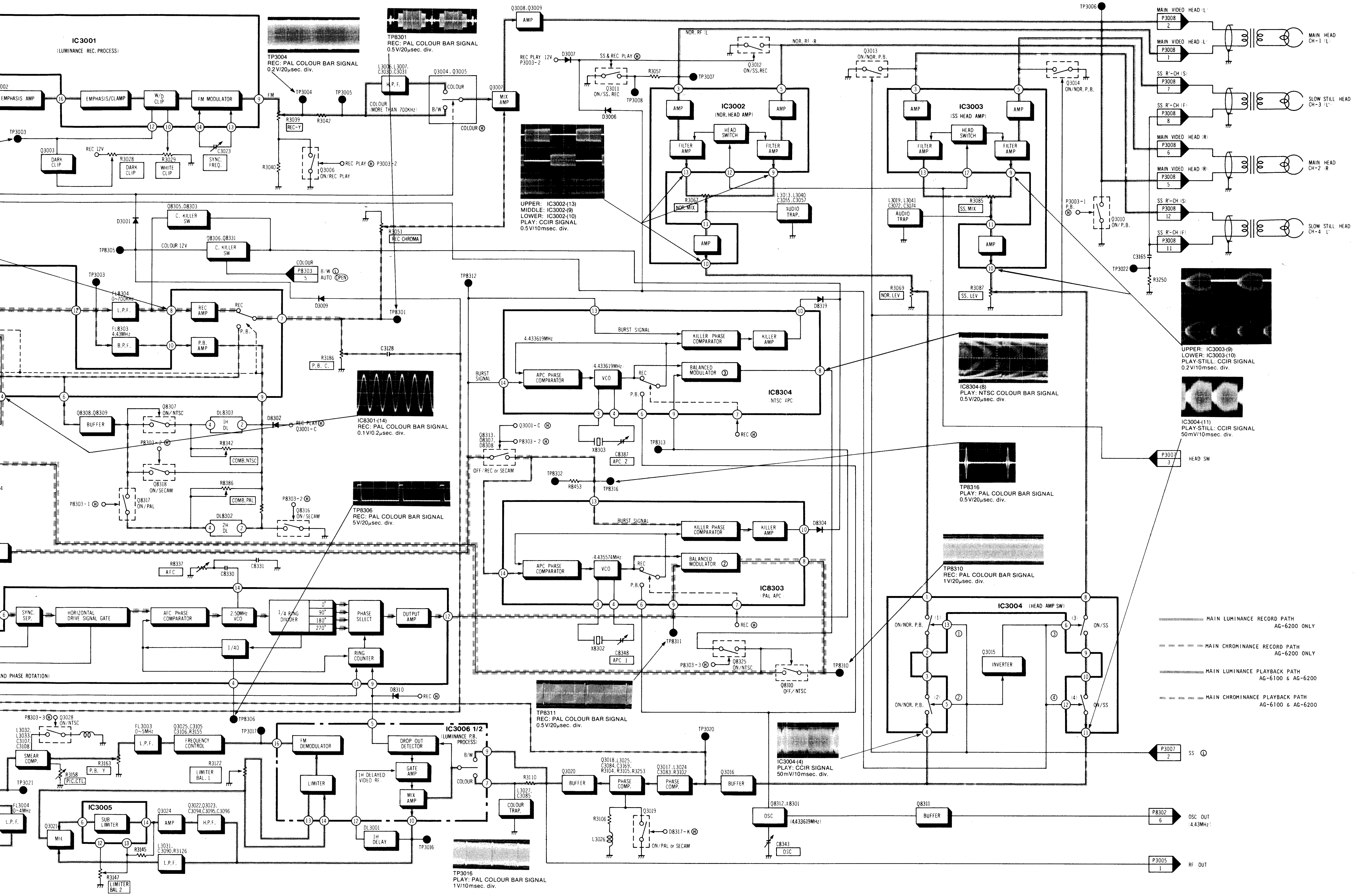


# LUMINANCE & CHROMINANCE BLOCK DIAGRAM

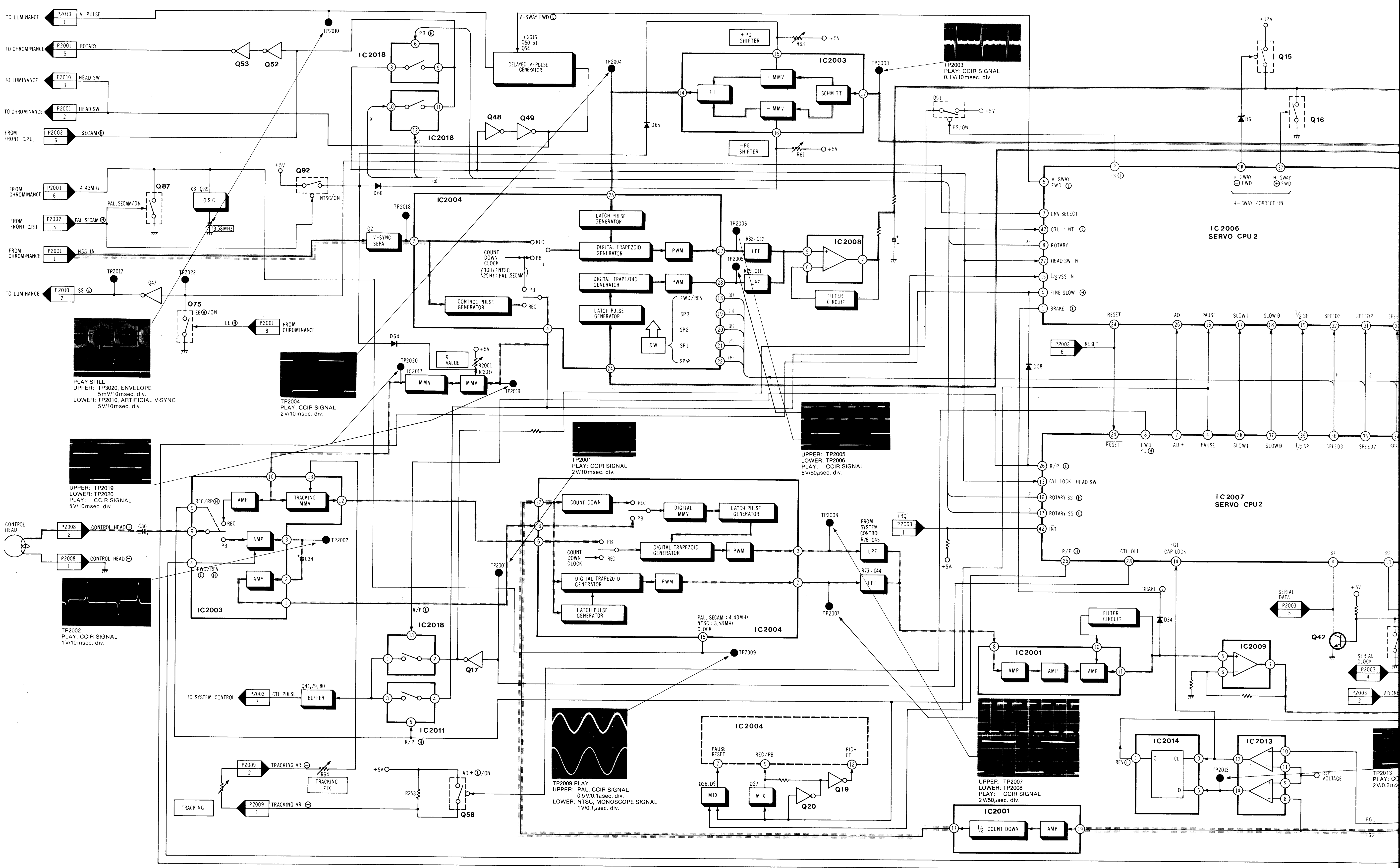


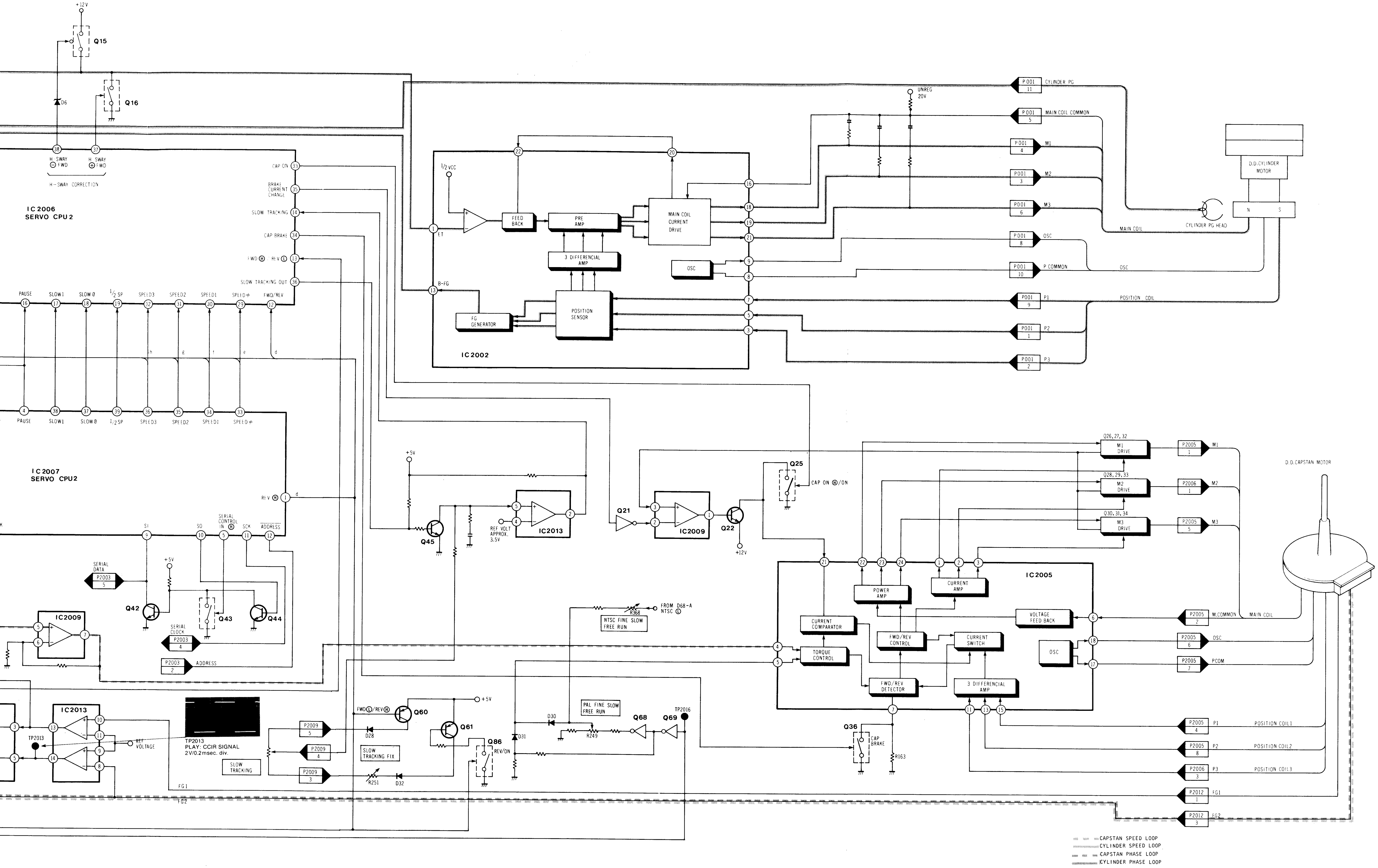
VIDEO SIGNAL
P3006 1
TP3001
FL3001 0~5MHz
L.P.F.
AGC
AMP
DET.
R3005 E-E
IC3001 (LUMINANCE REC. PROCESS)
B/W
COLOUR
FL3002 0~4MHz
L.P.F.
LUMINANCE SIGNAL
R3018 DEV.
AMP
Q3002 EMPHASIS AMP
EMPHASIS/CLAMP
W/D CLIP
FM MODULATOR
TP3003
Q3003 DARK CLIP
REC 12V
R3028 DARK CLIP
R3029 WHITE CLIP
C3023 SYNC. FREQ.
TP3001 REC: PAL COLOUR BAR SIGNAL 0.5V/20μsec. div.
IC8301-(8) REC: PAL COLOUR BAR SIGNAL 50mV/20μsec. div.
TP3003 REC: PAL COLOUR BAR SIGNAL 0.5V/20μsec. div.
TP3004 REC: PAL COLOUR BAR SIGNAL 0.2V/20μsec. div.
FM
TP3004
TP3005
R3039 REC-Y
R3042
R3040
Q3006 ON/REC PLAY
REC PLAY Ⓗ P3003-2
TP8301 REC: PAL COLOUR BAR SIGNAL 0.5V/20μsec. div.
L3006, L3007, C3030, C3031
H.P.F.
COLOUR MORE THAN 700KHz
Q3004, Q3005
COLOUR
B/W
COLOUR Ⓗ
Q3007 MIX AMP
Q3008, Q3009 AMP
REC PLAY 12V P3003-2
D3007
SS & REC PLAY Ⓗ
Q3011 ON/SS, REC
R3057
TP3007
TP3008
D3006
Q3012 ON/SS, REC
NOR, RF L
NOR, RF R
Q3013 ON/NOR, P.B.
IC3002 (NOR, HEAD AMP)
AMP
HEAD SWITCH
FILTER AMP
R3067 NOR, MIX
L3013, L3040 C3055, C3057 AUDIO TRAP.
L3019, L3041 C3072, C3074 AUDIO TRAP
UPPER: IC3002-(13) MIDDLE: IC3002-(9) LOWER: IC3002-(10) PLAY: CCIR SIGNAL 0.5V/10msec. div.
Q8305, Q8303 C. KILLER SW
Q8306, Q8331 C. KILLER SW
D3001
TP8305
COLOUR 12V
COLOUR P8303 5 B/W Ⓛ AUTO OPEN
R3051 REC CHROMA
D3009
FL8301 4.43MHz B.P.F.
FL8302 0~700KHz L.P.F.
Q8301 AMP
L8302 C8312 R8312 FREQUENCY COMP.
Q8303 ON/SECAM
P8303-2 SECAM Ⓗ
IC8301 (COLOUR PROCESS)
REC
P.B.
ACC
C8313
BALANCED MODULATOR ①
ACC DETECTION
BURST GATE
TP3003
FL8304 0~700KHz L.P.F.
FL8303 4.43MHz B.P.F.
REC AMP
P.B. AMP
TP8301
TP8312
R3186 P.B. C.
C3128
TP8304 REC: PAL COLOUR BAR SIGNAL 1V/20μsec. div.
FL8305 5.06MHz B.P.F.
TP8304
Q8308, Q8309 BUFFER
Q8307 ON/NTSC
DL8303 1H DL
D8302
REC PLAY Ⓗ Q3001-C
IC8301-(14) REC: PAL COLOUR BAR SIGNAL 0.1V/0.2μsec. div.
P8303-2 Ⓗ
R8342 COMB, NTSC
Q8318 ON/SECAM
R8386 COMB, PAL
P8303-1 Ⓗ
Q8317 ON/PAL
DL8302 2H DL
P8303-2 Ⓗ
Q8316 ON/SECAM
TP8306 REC: PAL COLOUR BAR SIGNAL 5V/20μsec. div.
IC8301-(1) REC: PAL COLOUR BAR SIGNAL 0.1V/20μsec. div.
BURST GATE PULSE
Q8336 BUFFER
L8306 C8326, C8327 DELAY
Q8304 BUFFER
SS Ⓗ
D8323, D8324, D8325
R8337 AFC
C8330
C8331
IC8302 (AFC AND PHASE ROTATION)
WHITE CLIP
C8322
SYNC. SEP.
HORIZONTAL DRIVE SIGNAL GATE
AFC PHASE COMPARATOR
2.50MHz VCO
1/4 RING DIVIDER
0° 90° 180° 270°
PHASE SELECT
OUTPUT AMP
1/40
RING COUNTER
D8310
REC Ⓗ
HSS OUT P8302 3
ROTARY SW P8302 5
VIDEO OUT RF P3004 5
VIDEO OUT 8PIN P3004 3
VIDEO LINE OUT P3004 1
SS V PULSE P3007 1
EE Ⓗ P3003 3
TP3018
Q3034 BUFFER
FL3005 L.P.F.
Q3032, Q3033 AMP
TP3019
Q3030, Q3031 AMP
TP3018 REC: PAL COLOUR BAR SIGNAL 20mV/20μsec. div.
TP3019 REC: PAL COLOUR BAR SIGNAL 1V/20μsec. div.
EE
VV
CLAMP MUTING
MIX
NOISE CANCELL
LIMITER INVERTER
H.P.F.
C3125
B/W
COLOUR
TP3021
FL3004 0~4MHz L.P.F.
IC3006 1/2 (LUMINANCE P.B. PROCESS)
P8303-3 Ⓗ Q3028 ON/NTSC
L3032, L3033, C3107, C3108
SMEAR COMP.
R3158 PIC.CTL
R3163 P.B. Y
FL3003 0~5MHz L.P.F.
Q3025, C3105 C3106, R3155 FREQUENCY CONTROL
LIMITER BAL. 1
R3122
IC3005
SUB LIMITER
Q3021 MIX
Q3024 AMP
Q3022, Q3023, C3094, C3095, C3096 H.P.F.
R3145
L3031, C3090, R3126 L.P.F.
R3147 LIMITER BAL 2
TP3017
TP8306
FM DEMODULATOR
LIMITER
1H DELAYED VIDEO RF
DL3001 1H DELAY
TP3016
DROP OUT DETECTOR
GATE AMP
MIX AMP
IC3006 1/2 (LUMINANCE P.B. PROCESS)
B/W
COLOUR
R3110
L3027, C3085 COLOUR TRAP.
Q3020 BUFFER
Q3018, L3025, C3084, C3169, R3104, R3105, R3253 PHASE COMP.
Q3017, L3024 C3083, R3102 PHASE COMP.
Q3016 BUFFER
R3106
L3026
Q3019
Q8317-K Ⓗ
ON/PAL or SECAM
TP3020
TP3016 PLAY: PAL COLOUR BAR SIGNAL 1V/10msec. div.
TP8311 REC: PAL COLOUR BAR SIGNAL 0.5V/20μsec. div.
IC3004-(4) PLAY: CCIR SIGNAL 50mV/10msec. div.
Q8312, Q8301 OSC (4.433619MHz)
C8343 OSC
R3069 NOR, LEV
D8319
BURST SIGNAL
KILLER PHASE COMPARATOR
KILLER AMP
4.433619MHz
APC PHASE COMPARATOR
VCO
4.433619MHz
REC
P.B.
BALANCED MODULATOR ③
IC8304 NTSC APC
Q8313, Q8307, Q8308 OFF/REC or SECAM
Q3001-C Ⓗ
P8303-2 Ⓗ
X8303
C8387 APC 2
REC Ⓗ
TP8313
TP8302
R8453
TP8316
D8304
BURST SIGNAL
KILLER PHASE COMPARATOR
KILLER AMP
4.435574MHz
APC PHASE COMPARATOR
VCO
REC
P.B.
BALANCED MODULATOR ②
IC8303 PAL APC
X8302
C8348 APC 1
TP8311
REC Ⓗ
P8303-3 Ⓗ
Q8325 ON/NTSC
Q8310 OFF/NTSC
TP8310
ON/NOR, P.B.
ON/NOR, P.B.

# K DIAGRAM

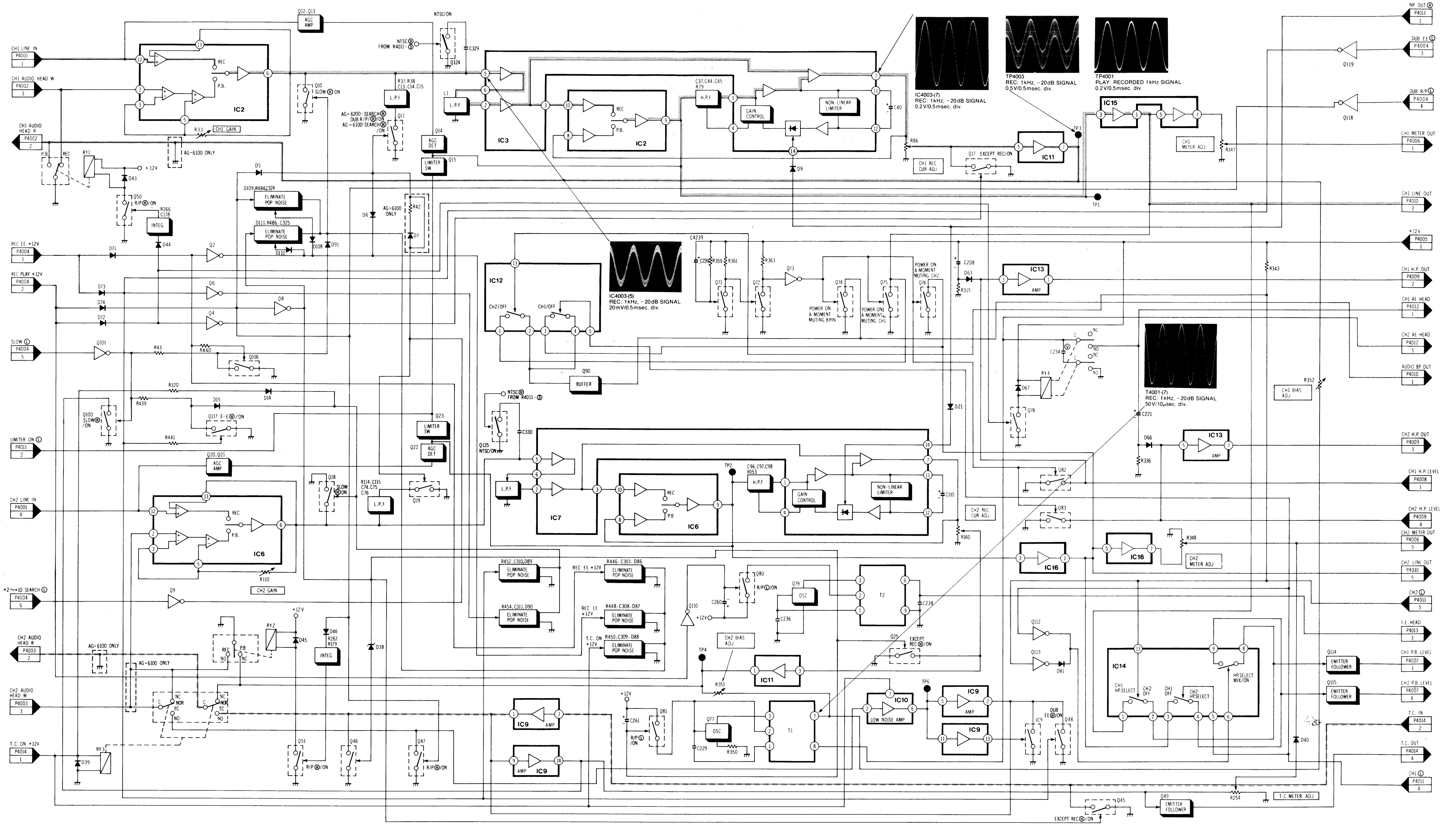

IC3001
(LUMINANCE REC. PROCESS)
EMPHASIS AMP
EMPHASIS/CLAMP
W/D CLIP
FM MODULATOR
DARK CLIP
WHITE CLIP
SYNC. FREQ.
TP3004
REC: PAL COLOUR BAR SIGNAL
0.2V/20μsec. div.
TP8301
REC: PAL COLOUR BAR SIGNAL
0.5V/20μsec. div.
Q3008, Q3009
AMP
H.P.F.
COLOUR (MORE THAN 700KHz)
MIX AMP
REC CHROMA
C. KILLER SW
COLOUR 12V
REC AMP
P.B. AMP
L.P.F.
B.P.F.
BUFFER
1H DL
2H DL
COMB. NTSC
COMB. PAL
AFC
TP8305
TP3003
TP8312
IC8301-(14)
REC: PAL COLOUR BAR SIGNAL
0.1V/0.2μsec. div.
TP8306
REC: PAL COLOUR BAR SIGNAL
5V/20μsec. div.
UPPER: IC3002-(13)
MIDDLE: IC3002-(9)
LOWER: IC3002-(10)
PLAY: CCIR SIGNAL
0.5V/10msec. div.
IC3002
(NOR. HEAD AMP)
AMP
FILTER AMP
HEAD SWITCH
NOR. MIX
AUDIO TRAP.
IC3003
(SS HEAD AMP)
SS. MIX
NOR. LEV
SS. LEV
MAIN VIDEO HEAD (L)
MAIN VIDEO HEAD (R)
SS R'-CH (S)
SS R'-CH (F)
MAIN HEAD CH-1 (L)
SLOW STILL HEAD CH-3 (L')
MAIN HEAD CH-2 (R)
SLOW STILL HEAD CH-4 (L')
UPPER: IC3003-(9)
LOWER: IC3003-(10)
PLAY-STILL: CCIR SIGNAL
0.2V/10msec. div.
IC3004-(11)
PLAY-STILL: CCIR SIGNAL
50mV/10msec. div.
HEAD SW
BURST SIGNAL
KILLER PHASE COMPARATOR
KILLER AMP
APC PHASE COMPARATOR
VCO
BALANCED MODULATOR ③
BALANCED MODULATOR ②
4.433619MHz
4.435574MHz
IC8304
NTSC APC
IC8303
PAL APC
APC 1
APC 2
IC8304-(8)
PLAY: NTSC COLOUR BAR SIGNAL
0.5V/20μsec. div.
TP8316
PLAY: PAL COLOUR BAR SIGNAL
0.5V/20μsec. div.
TP8310
REC: PAL COLOUR BAR SIGNAL
1V/20μsec. div.
OFF/REC or SECAM
SYNC. SEP.
HORIZONTAL DRIVE SIGNAL GATE
AFC PHASE COMPARATOR
2.50MHz VCO
1/4 RING DIVIDER
PHASE SELECT
OUTPUT AMP
1/40
RING COUNTER
TP8311
REC: PAL COLOUR BAR SIGNAL
0.5V/20μsec. div.
IC3004 (HEAD AMP SW)
ON/NOR. P.B.
ON/SS
INVERTER
IC3004-(4)
PLAY: CCIR SIGNAL
50mV/10msec. div.
SMEAR COMP.
FREQUENCY CONTROL
LIMITER BAL. 1
LIMITER BAL 2
IC3005
SUB LIMITER
AMP
MIX
H.P.F.
L.P.F.
IC3006 1/2
(LUMINANCE P.B. PROCESS)
FM DEMODULATOR
LIMITER
DROP OUT DETECTOR
GATE AMP
MIX AMP
1H DELAYED VIDEO RF
1H DELAY
COLOUR TRAP.
BUFFER
PHASE COMP.
OSC
(4.433619MHz)
TP3016
PLAY: PAL COLOUR BAR SIGNAL
1V/10msec. div.
OSC OUT (4.43MHz)
RF OUT
SS
MAIN LUMINANCE RECORD PATH AG-6200 ONLY
MAIN CHROMINANCE RECORD PATH AG-6200 ONLY
MAIN LUMINANCE PLAYBACK PATH AG-6100 & AG-6200
MAIN CHROMINANCE PLAYBACK PATH AG-6100 & AG-6200

# CAPSTAN & CYLINDER SERVO BLOCK DIAGRAM


TO LUMINANCE P2010 1 V. PULSE
TO CHROMINANCE P2001 5 ROTARY
TO LUMINANCE P2010 3 HEAD SW
TO CHROMINANCE P2001 2 HEAD SW
FROM FRONT C.P.U. P2002 6 SECAM Ⓗ
FROM CHROMINANCE P2001 6 4.43MHz
FROM FRONT C.P.U. P2002 5 PAL SECAM Ⓗ
FROM CHROMINANCE P2001 1 HSS IN
TO LUMINANCE P2010 2 SS Ⓛ
Q53
Q52
Q87
X3, Q89 OSC
3.58MHz
PAL, SECAM/ON
Q92
NTSC/ON
D66
Q47
TP2017
TP2022
Q75
EE Ⓗ/ON
EE Ⓗ P2001 8 FROM CHROMINANCE
TP2010
IC2018
PB Ⓗ
Q48
Q49
V-SWAY FWD Ⓛ
IC2016 Q50, 51 Q54
DELAYED V-PULSE GENERATOR
TP2004
D65
+PG SHIFTER
R63
+5V
IC2003
+ MMV
- MMV
F F
SCHMITT
-PG SHIFTER
R61
TP2003
TP2003 PLAY: CCIR SIGNAL 0.1V/10msec. div.
Q91
FS/ON
+12V
Q15
D6
Q16
IC2004
TP2018
Q2 V-SYNC SEPA
REC
COUNT DOWN CLOCK
(30Hz : NTSC 25Hz : PAL, SECAM)
PB
CONTROL PULSE GENERATOR
LATCH PULSE GENERATOR
DIGITAL TRAPEZOID GENERATOR
PWM
FWD/REV
SP3
SP2
SP1
SPϕ
SW
TP2006
R32, C12
LPF
TP2005
R29, C11
IC2008
FILTER CIRCUIT
D64
TP2020
IC2017
MMV
X VALUE
R2001
TP2019
D58
P2003 6 RESET
PLAY-STILL
UPPER: TP3020, ENVELOPE 5mV/10msec. div.
LOWER: TP2010, ARTIFICIAL V-SYNC 5V/10msec. div.
TP2004 PLAY: CCIR SIGNAL 2V/10msec. div.
TP2001 PLAY: CCIR SIGNAL 2V/10msec. div.
UPPER: TP2005 LOWER: TP2006 PLAY: CCIR SIGNAL 5V/50μsec. div.
UPPER: TP2019 LOWER: TP2020 PLAY: CCIR SIGNAL 5V/10msec. div.
V SWAY FWD Ⓛ
FS Ⓛ
H SWAY ⊖FWD
H SWAY ⊕FWD
H-SWAY CORRECTION
ENV SELECT
CTL INT Ⓛ
ROTARY
HEAD SW IN
1/2 VSS IN
FINE SLOW Ⓗ
BRAKE Ⓛ
IC2006 SERVO CPU 2
RESET
AD
PAUSE
SLOW1
SLOWϕ
1/2 SP
SPEED3
SPEED2
FWD ×1 Ⓗ
AD +
R/P Ⓛ
CYL LOCK, HEAD SW
ROTARY SS Ⓗ
ROTARY SS Ⓛ
INT
IC2007 SERVO CPU2
CONTROL HEAD
P2008 2 CONTROL HEAD⊕
C36
P2008 1 CONTROL HEAD⊖
REC/RPⒽ
AMP
TRACKING MMV
TP2002
C34
FWD/REV Ⓛ Ⓗ
IC2003
TP2002 PLAY: CCIR SIGNAL 1V/10msec. div.
COUNT DOWN
DIGITAL MMV
LATCH PULSE GENERATOR
DIGITAL TRAPEZOID GENERATOR
TP2001
PAL, SECAM : 4.43MHz NTSC : 3.58MHz CLOCK
IC2004
TP2008
FROM SYSTEM CONTROL R76, C45
IRQ P2003 1
R73, C44
TP2007
R/P Ⓗ
CTL OFF
FG1 CAP LOCK
BRAKE Ⓛ
D34
FILTER CIRCUIT
IC2001
IC2009
SERIAL DATA P2003 5
+5V
Q42
SERIAL CLOCK P2003 4
P2003 2 ADDRE
R/PⓁ
IC2018
Q17
Q41, 79, 80 BUFFER
TO SYSTEM CONTROL P2003 7 CTL PULSE
IC2011
R/P Ⓗ
TP2009
P2009 2 TRACKING VR ⊖
R64 TRACKING FIX
TRACKING
P2009 1 TRACKING VR ⊕
+5V
R253
AD + Ⓛ/ON
Q58
TP2009 PLAY
UPPER: PAL, CCIR SIGNAL 0.5V/0.1μsec. div.
LOWER: NTSC, MONOSCOPE SIGNAL 1V/0.1μsec. div.
IC2004
PAUSE RESET
REC/PB
PICH CTL
D26, D9 MIX
D27 MIX
Q19
Q20
UPPER: TP2007 LOWER: TP2008 PLAY: CCIR SIGNAL 2V/50μsec. div.
IC2001
1/2 COUNT DOWN
AMP
IC2014
REV Ⓛ
IC2013
TP2013
REF VOLTAGE
TP2013 PLAY: C 2V/0.2ms
FG1
FG2


+12V
Q15
Q16
D6
H-SWAY ⊖ FWD
H-SWAY ⊕ FWD
H-SWAY CORRECTION
IC2006
SERVO CPU2
CAP ON
BRAKE CURRENT CHANGE
SLOW TRACKING
CAP BRAKE
FWD Ⓗ · REV Ⓛ
SLOW TRACKING OUT
PAUSE
SLOW1
SLOW Ø
1/2 SP
SPEED3
SPEED2
SPEED1
SPEED Φ
FWD/REV
h
g
f
e
d
IC2007
SERVO CPU2
REV Ⓗ
SI
SO
SERIAL CONTROL IN Ⓗ
SCK
ADDRESS
SERIAL DATA
P2003 5
Q42
+5V
Q43
Q44
SERIAL CLOCK
P2003 4
P2003 2
ADDRESS
IC2009
IC2013
TP2013
REF VOLTAGE
TP2013
PLAY: CCIR SIGNAL
2V/0.2msec. div.
SLOW TRACKING
FG1
FG2
1/2 VCC
ET
B-FG
FEED BACK
PRE AMP
MAIN COIL CURRENT DRIVE
3 DIFFERENCIAL AMP
OSC
POSITION SENSOR
FG GENERATOR
IC2002
UNREG 20V
P001 11
CYLINDER PG
P001 5
MAIN COIL COMMON
P001 4
M1
P001 3
M2
P001 6
M3
P001 8
OSC
P001 10
P COMMON
P001 9
P1
P001 1
P2
P001 2
P3
MAIN COIL
OSC
POSITION COIL
CYLINDER PG HEAD
D.D.CYLINDER MOTOR
N
S
+5V
Q45
REF VOLT APPROX. 3.5V
IC2013
Q21
IC2009
Q22
+12V
Q25
CAP ON Ⓗ/ON
FROM D68-A NTSC Ⓛ
R368
NTSC FINE SLOW FREE RUN
FWD Ⓛ/REV Ⓗ
Q60
Q61
+5V
P2009 5
P2009 4
P2009 3
D28
SLOW TRACKING FIX
R251
D32
Q86
REV/ON
D31
D30
PAL FINE SLOW FREE RUN
R249
Q68
Q69
TP2016
Q26, 27, 32
M1 DRIVE
Q28, 29, 33
M2 DRIVE
Q30, 31, 34
M3 DRIVE
P2005 1
M1
P2006 1
M2
P2005 5
M3
D.D.CAPSTAN MOTOR
IC2005
POWER AMP
CURRENT AMP
CURRENT COMPARATOR
VOLTAGE FEED BACK
FWD/REV CONTROL
CURRENT SWITCH
TORQUE CONTROL
OSC
FWD/REV DETECTOR
3 DIFFERENCIAL AMP
P2005 2
M.COMMON
MAIN COIL
P2005 6
OSC
P2005 7
PCOM
Q36
CAP BRAKE
R163
P2005 4
P1
POSITION COIL1
P2005 8
P2
POSITION COIL2
P2006 3
P3
POSITION COIL3
P2012 1
FG1
P2012 3
FG2
CAPSTAN SPEED LOOP
CYLINDER SPEED LOOP
CAPSTAN PHASE LOOP
CYLINDER PHASE LOOP

# AUDIO BLOCK DIAGRAM


CH1 LINE IN P4001 1
CH1 AUDIO HEAD W P4002 3
CH1 AUDIO HEAD R P4002 2
REC EE +12V P4004 1
REC PLAY +12V P4004 2
SLOW Ⓛ P4004 5
LIMITER ON Ⓛ P4011 2
CH2 LINE IN P4001 4
×2～×10 SEARCH Ⓛ P4004 6
CH2 AUDIO HEAD R P4003 2
CH2 AUDIO HEAD W P4003 3
T.C. ON +12V P4014 1
IC2
REC
P.B.
R33
CH1 GAIN
AG-6100 ONLY
RY1
+12V
D43
Q50
R/PⒽ/ON
R266 C178
INTEG
D44
D71
D73
D74
D72
Q101
R43
R440
Q116
Q100 SLOWⒽ/ON
R120
R439
D15
D14
Q117 E-EⒽ/ON
R441
Q2
Q6
Q8
Q4
D5
D109, R484, C324
ELIMINATE POP NOISE
D111, R486, C325
ELIMINATE POP NOISE
D110
D108
D91
Q12, Q13
AGC AMP
Q10
SLOW Ⓗ ON
NTSC/ON
NTSCⒽ FROM R4011-③
Q124
C329
R37, R38 C13, C14, C15
L.P.F
AG-6200: SEARCHⒽ
DUB R/P/Ⓗ/ON
AG-6100: SEARCHⒽ /ON
Q11
Q14
AGC DET
LIMITER SW
Q15
D6
AG-6100 ONLY
R42
D7
L1
L.P.F
IC3
IC2
C37, C44, C45
R79
H.P.F
GAIN CONTROL
NON-LINEAR LIMITER
D9
C40
R86
CH1 REC CUR ADJ
Q17 EXCEPT REC/ON
IC11
TP3
TP1
IC15
CH1 METER ADJ
R347
Q119
Q118
IC12
CH2/OFF
CH1/OFF
Q90
BUFFER
C4239
C239
R359
R361
R363
Q71
Q72
Q73
Q74
Q75
Q76
POWER ON A MOMENT MUTING 8PIN
POWER ON A MOMENT MUTING CH1
POWER ON A MOMENT MUTING CH2
C208
D63
R315
IC13
AMP
R343
RY4
C234
NC
NO
C
D67
D21
Q78
R352
CH1 BIAS ADJ
C221
D66
R336
IC13
AMP
NTSCⒽ FROM R4011-③
Q125 NTSC/ON
C330
Q23
LIMITER SW
Q22
AGC DET
Q20, Q21
AGC AMP
IC6
REC
P.B.
R110
CH2 GAIN
Q18
SLOW Ⓗ ON
R114, C115 C74, C75 C76
L.P.F
Q19
L.P.F
IC7
IC6
TP2
C96, C97, C98 R153
H.P.F
GAIN CONTROL
NON-LINEAR LIMITER
C110
CH2 REC CUR ADJ
R160
Q82
Q83
IC16
IC16
R348
CH2 METER ADJ
R452, C310, D89
ELIMINATE POP NOISE
R454, C311, D90
ELIMINATE POP NOISE
REC EE +12V
R446, C307, D86
ELIMINATE POP NOISE
REC EE +12V
R448, C308, D87
ELIMINATE POP NOISE
T.C. ON +12V
R450, C309, D88
ELIMINATE POP NOISE
Q9
RY2
REC
NO
P.B
NC
+12V
D45
D46
R267
R179
INTEG
D38
D39
RY3
C
NC
NOR
TC
NO
Q51
R/PⒽ/ON
Q46
Q47
R/PⒽ/ON
IC9
AMP
IC9
AMP
Q110
+12V
TP4
CH2 BIAS ADJ
R351
IC11
Q80
R/PⒽ/ON
C260
Q79
OSC
C236
T2
C238
Q25
EXCEPT RECⒽ/ON
+12V
C261
Q81
R/PⓁ/ON
Q77
OSC
C229
R350
T1
IC10
LOW NOISE AMP
TP6
IC9
AMP
IC9
IC9
DUB EEⒽ/ON
Q48
Q112
Q113
D81
IC14
CH1 HP.SELECT
CH2 OFF
CH1 OFF
CH2 HP.SELECT
HP.SELECT MIX/ON
D40
Q114 EMITTER FOLLOWER
Q115 EMITTER FOLLOWER
R254
T.C. METER ADJ
Q45
EXCEPT RECⒽ/ON
Q49 EMITTER FOLLOWER
NR OUT Ⓗ P4011 1
DUB EE Ⓛ P4004 3
DUB R/P Ⓛ P4004 4
CH1 METER OUT P4006 1
CH1 LINE OUT P4010 3
+12V P4005 1
CH1 H.P. OUT P4009 2
CH1 AE HEAD P4012 1
CH2 AE HEAD P4012 5
AUDIO 8P OUT P4010 1
CH2 H.P. OUT P4009 3
CH1 H.P. LEVEL P4008 1
CH2 H.P. LEVEL P4008 4
CH2 METER OUT P4006 5
CH2 LINE OUT P4010 5
CH2 Ⓛ P4011 5
F.E. HEAD P4013 3
CH1 P.B. LEVEL P4007 1
CH2 P.B. LEVEL P4007 4
T.C. IN P4014 2
T.C. OUT P4014 4
CH1 Ⓛ P4011 4

IC4003-(7)
REC: 1kHz, −20dB SIGNAL
0.2V/0.5msec. div.

TP4003
REC: 1kHz, −20dB SIGNAL
0.5V/0.5msec. div.

TP4001
PLAY: RECORDED 1kHz SIGNAL
0.2V/0.5msec. div.

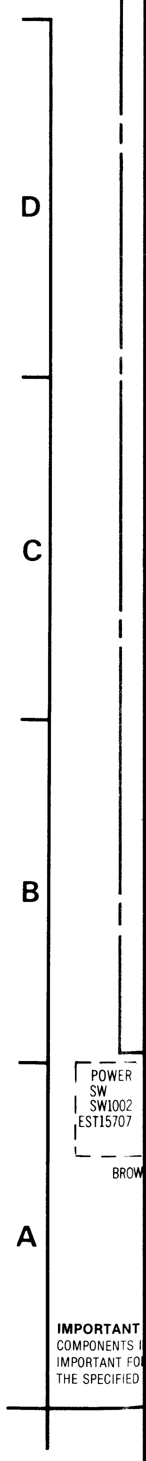
IC4003-(5)
REC: 1kHz, −20dB SIGNAL
20mV/0.5msec. div.

T4001-(7)
REC: 1kHz, −20dB SIGNAL
50V/10μsec. div.

NORMAL AUDIO SIGNAL RECORDING PATH AG-6200 ONLY
NORMAL AUDIO SIGNAL PLAYBACK PATH AG-6100 and AG-6200

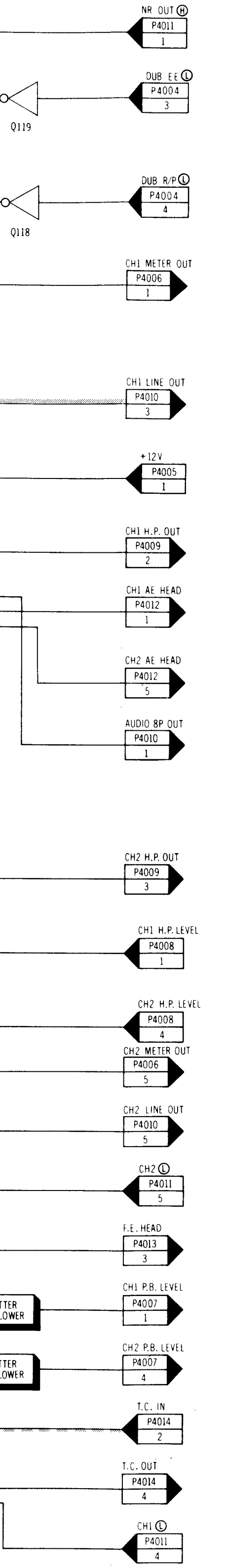
TIME CODE SIGNAL RECORDING PATH AG-6200 ONLY
TIME CODE SIGNAL PLAYBACK PATH AG-6200 ONLY

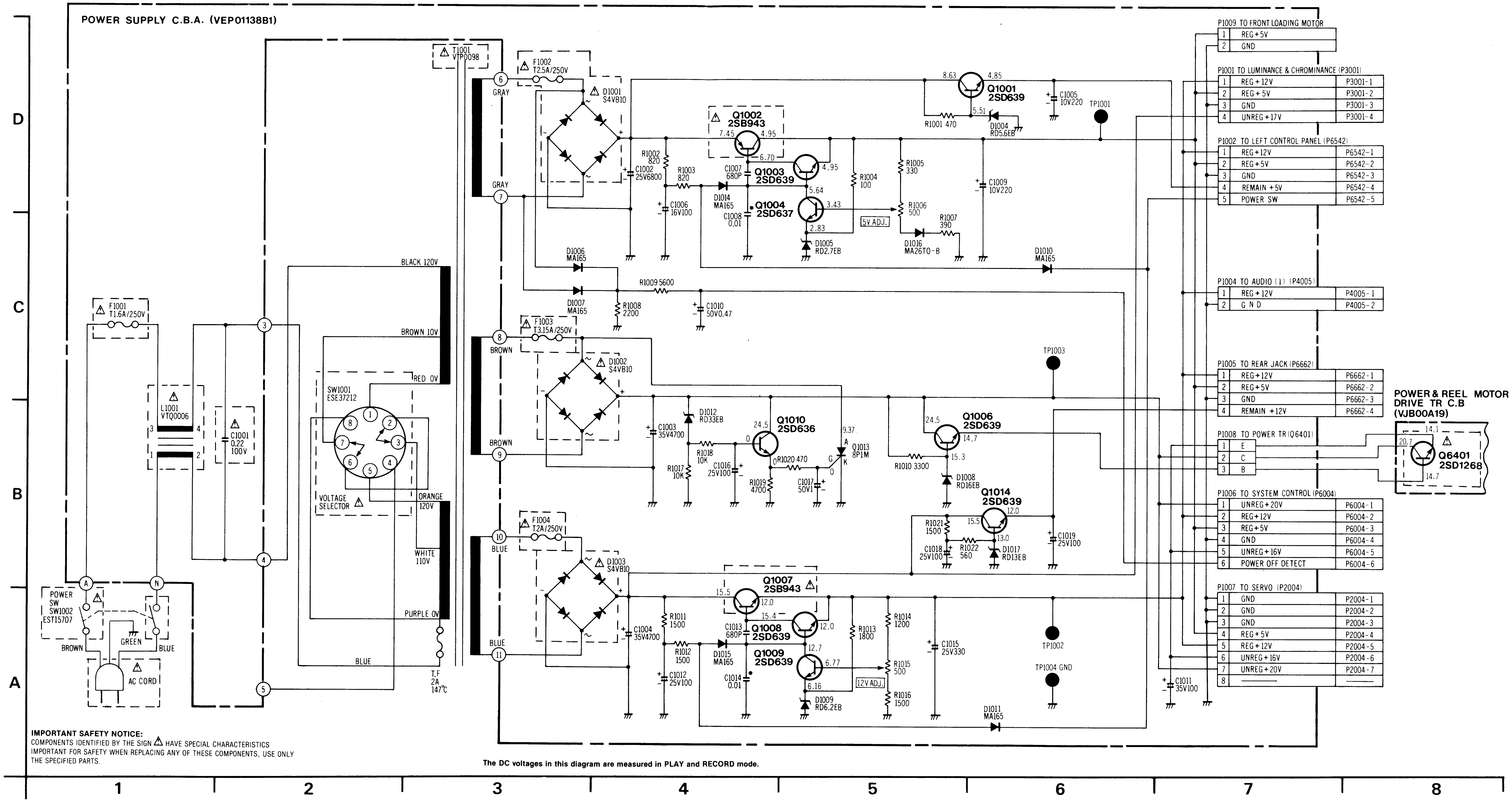
## POW


D
C
B
A
POWER SW SW1002 EST15707
BROW

**IMPORTANT**
COMPONENTS I
IMPORTANT FO
THE SPECIFIED

# POWER SUPPLY SCHEMATIC DIAGRAM


NR OUT
P4011
DUB EE
P4004
Q119
DUB R/P
P4004
Q118
CH1 METER OUT
P4006
CH1 LINE OUT
P4010
+12V
P4005
CH1 H.P. OUT
P4009
CH1 AE HEAD
P4012
CH2 AE HEAD
P4012
AUDIO BP OUT
P4010
CH2 H.P. OUT
P4009
CH1 H.P. LEVEL
P4008
CH2 H.P. LEVEL
P4008
CH2 METER OUT
P4006
CH2 LINE OUT
P4010
CH2
P4011
F.E. HEAD
P4013
CH1 P.B. LEVEL
P4007
CH2 P.B. LEVEL
P4007
T.C. IN
P4014
T.C. OUT
P4014
CH1
P4011


POWER SUPPLY C.B.A. (VEP01138B1)
D
C
B
A
1
2
3
4
5
6
7
8
T1001 VTP0098
F1001 T1.6A/250V
F1002 T2.5A/250V
F1003 T3.15A/250V
F1004 T2A/250V
D1001 S4VB10
D1002 S4VB10
D1003 S4VB10
L1001 VTQ0006
C1001 0.22 100V
SW1001 ESE37212
VOLTAGE SELECTOR
POWER SW SW1002 EST15707
AC CORD
BROWN
GREEN
BLUE
GRAY
BLACK 120V
BROWN 10V
RED 0V
ORANGE 120V
WHITE 110V
PURPLE 0V
T.F 2A 147°C
Q1001 2SD639
Q1002 2SB943
Q1003 2SD639
Q1004 2SD637
Q1006 2SD639
Q1007 2SB943
Q1008 2SD639
Q1009 2SD639
Q1010 2SD636
Q1013 8P1M
Q1014 2SD639
R1001 470
R1002 820
R1003 820
R1004 100
R1005 330
R1006 500
R1007 390
R1008 2200
R1009 5600
R1010 3300
R1011 1500
R1012 1500
R1013 1800
R1014 1200
R1015 500
R1016 1500
R1017 10K
R1018 10K
R1019 4700
R1020 470
R1021 1500
R1022 560
C1002 25V6800
C1003 35V4700
C1004 35V4700
C1005 10V220
C1006 16V100
C1007 680P
C1008 0.01
C1009 10V220
C1010 50V0.47
C1011 35V100
C1012 25V100
C1013 680P
C1014 0.01
C1015 25V330
C1016 25V100
C1017 50V1
C1018 25V100
C1019 25V100
D1004 RD5.6EB
D1005 RD2.7EB
D1006 MA165
D1007 MA165
D1008 RD16EB
D1009 RD6.2EB
D1010 MA165
D1011 MA165
D1012 RD33EB
D1014 MA165
D1015 MA165
D1016 MA26TO-B
D1017 RD13EB
5V ADJ.
12V ADJ.
TP1001
TP1002
TP1003
TP1004 GND
8.63
4.85
5.51
7.45
4.95
6.70
5.64
3.43
2.83
24.5
9.37
14.7
15.3
15.5
12.0
13.0
15.4
12.7
6.77
6.16
20.7
14.1
P1009 TO FRONT LOADING MOTOR
1 REG+5V
2 GND
P1001 TO LUMINANCE & CHROMINANCE (P3001)
1 REG+12V P3001-1
2 REG+5V P3001-2
3 GND P3001-3
4 UNREG+17V P3001-4
P1002 TO LEFT CONTROL PANEL (P6542)
1 REG+12V P6542-1
2 REG+5V P6542-2
3 GND P6542-3
4 REMAIN +5V P6542-4
5 POWER SW P6542-5
P1004 TO AUDIO (1) (P4005)
1 REG+12V P4005-1
2 GND P4005-2
P1005 TO REAR JACK (P6662)
1 REG+12V P6662-1
2 REG+5V P6662-2
3 GND P6662-3
4 REMAIN +12V P6662-4
P1008 TO POWER TR (Q6401)
1 E
2 C
3 B
POWER & REEL MOTOR DRIVE TR C.B (VJB00A19)
Q6401 2SD1268
P1006 TO SYSTEM CONTROL (P6004)
1 UNREG+20V P6004-1
2 REG+12V P6004-2
3 REG+5V P6004-3
4 GND P6004-4
5 UNREG+16V P6004-5
6 POWER OFF DETECT P6004-6
P1007 TO SERVO (P2004)
1 GND P2004-1
2 GND P2004-2
3 GND P2004-3
4 REG+5V P2004-4
5 REG+12V P2004-5
6 UNREG+16V P2004-6
7 UNREG+20V P2004-7
8

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

**The DC voltages in this diagram are measured in PLAY and RECORD mode.**

SIGNAL RECORDING PATH AG-6200 ONLY
SIGNAL PLAYBACK PATH AG-6100 and AG-6200
AL RECORDING PATH AG-6200 ONLY
AL PLAYBACK PATH AG-6200 ONLY

# POWER SUPPLY C.B.A. (VEP01138B1) & SMALL BOARD

**IMPORTAN**
COMPONENTS
IMPORTANT F
THE SPECIFIE

TO P3001
P1001 (LUMINANCE & CHROMINANCE)

| | |
|---|---|
| 1 | REG +12V |
| 2 | REG +5V |
| 3 | GND |
| 4 | UNREG 17V |

TO P6524
P1002 (LEFT CONTROL PANEL)

| | |
|---|---|
| 1 | REG +12V |
| 2 | REG +5V |
| 3 | GND |
| 4 | REG +5V |
| 5 | POWER SW |

P1008 TO Q6401 (POWER TR)

| | |
|---|---|
| 1 | E |
| 2 | C |
| 3 | B |

P1009 TO P6753 (FRONT LOADING MOTOR)

| | |
|---|---|
| 1 | REG +5V |
| 2 | GND |

P1004 TO P4005 (AUDIO (1))

| | |
|---|---|
| 1 | REG +12V |
| 2 | GND |

P1005 TO P6662 (REAR PANEL)

| | |
|---|---|
| 1 | REG + 12V |
| 2 | REG + 5V |
| 3 | GND |
| 4 | +12V (POWER FOR REMAINING) |

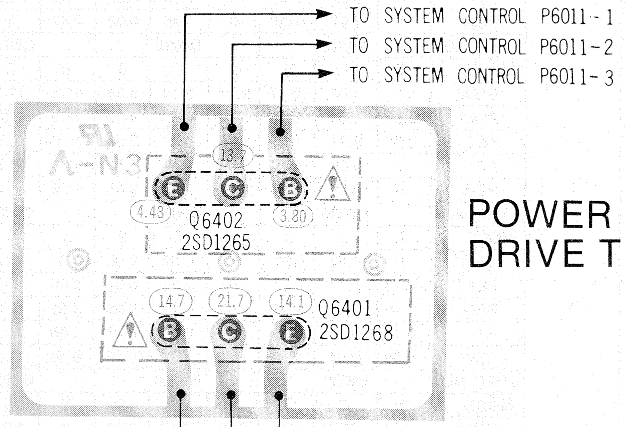
P1006 TO P6004 (SYSTEM CONTROL)

| | |
|---|---|
| 1 | UNREG +20V |
| 2 | REG +12V |
| 3 | REG +5V |
| 4 | GND |
| 5 | UNREG +16V |
| 6 | POWER OFF DETECT |

P1007 TO P2004 (SERVO)

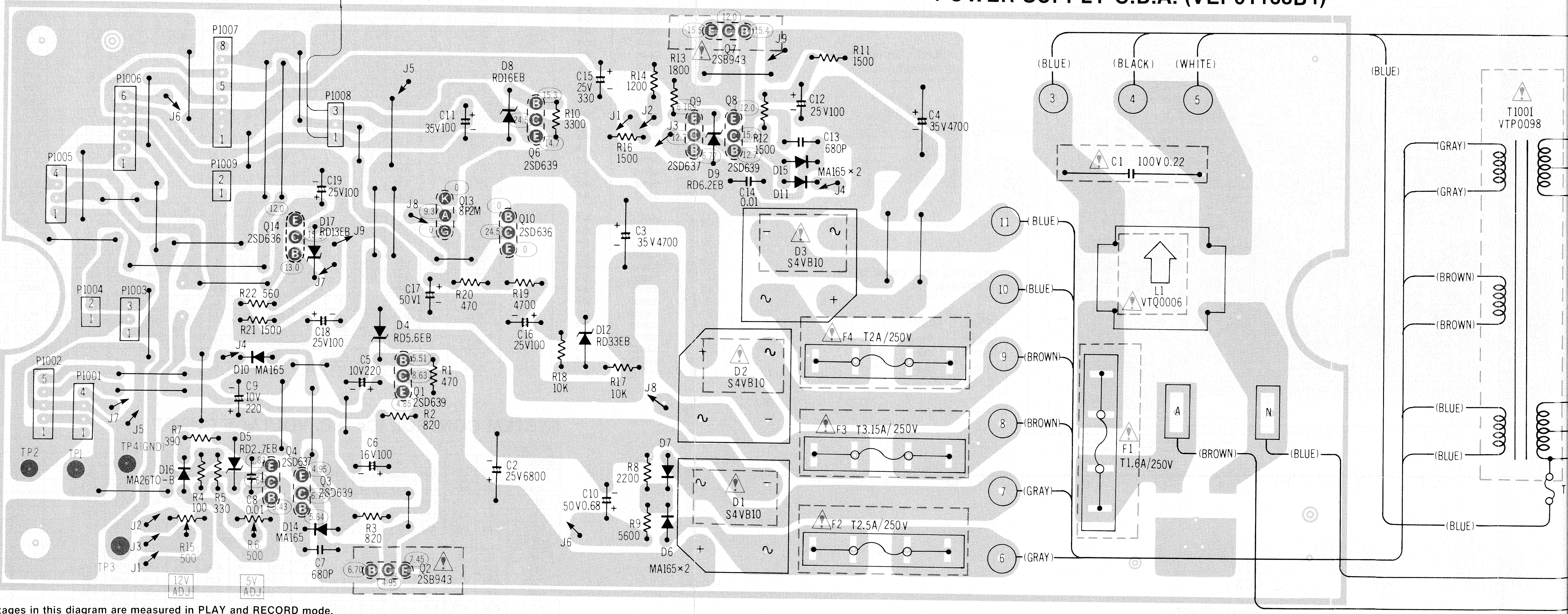
| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | REG +5V |
| 5 | REG +12V |
| 6 | UNREG 16V |
| 7 | UNREG 16V |
| 8 | —— |

## POWER & REEL MOTOR DRIVE TR C.B. (VJB00A19)



TO SYSTEM CONTROL P6011-1
TO SYSTEM CONTROL P6011-2
TO SYSTEM CONTROL P6011-3
13.7
E C B
4.43
Q6402
2SD1265
3.80
14.7
21.7
14.1
B C E
Q6401
2SD1268

## POWER SUPPLY C.B.A. (VEP01138B1)



P1007
P1006
P1008
P1009
P1005
P1004
P1003
P1002
P1001
J5
J6
J7
J8
J9
D8 RD16EB
C15 25V 330
C11 35V100
R14 1200
R13 1800
Q6 2SD639
R10 3300
Q7 2SB943
R11 1500
C12 25V100
C4 35V4700
Q9 2SD637
Q8 2SD639
R16 1500
R12 1500
C13 680P
D9 RD6.2EB
C14 0.01
D15 MA165×2
D11
J1
J2
J3
J4
C19 25V100
Q14 2SD636
D17 RD13EB
Q13 8P2M
Q10 2SD636
C3 35V4700
D3 S4VB10
R22 560
R21 1500
C18 25V100
C17 50V1
R20 470
R19 4700
C16 25V100
D4 RD5.6EB
D12 RD33EB
R18 10K
R17 10K
D10 MA165
C9 10V 220
C5 10V220
Q1 2SD639
R1 470
R2 820
D2 S4VB10
F4 T2A/250V
F3 T3.15A/250V
F2 T2.5A/250V
F1 T1.6A/250V
D1 S4VB10
TP2
TP1
TP4(GND)
TP3
R7 390
D5 RD2.7EB
Q4 2SD637
Q3 2SD639
D16 MA26TO-B
R4 100
R5 330
C8 0.01
C6 16V100
C2 25V6800
R8 2200
C10 50V0.68
R9 5600
D7
D6 MA165×2
R15 500
R6 500
D14 MA165
R3 820
C7 680P
Q2 2SB943
12V ADJ
5V ADJ
(BLUE)
(BLACK)
(WHITE)
(BLUE)
C1 100V0.22
L1 VTQ0006
T1001 VTP0098
(GRAY)
(BROWN)
(BLUE)
A
N

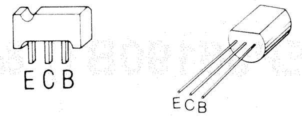
The DC voltages in this diagram are measured in PLAY and RECORD mode.

REF. NO. 1000 SERIES

# BOARD

- 1
- 2
- 3

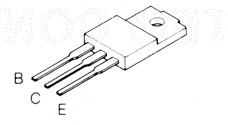
**Power Supply C.B.A. Transistors Information**



2SD636
2SD639

2SC1383

**Power & Reel Drive C.B. Transistors Information**



2SD1265
2SD1268
2SB943

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

| Power Supply C.B.A. (VEP01138B1) | |
|---|---|
| Q1001 | A-2 |
| Q1002 | A-2 |
| Q1003 | A-2 |
| Q1004 | A-2 |
| Q1006 | B-3 |
| Q1007 | C-3 |
| Q1008 | B-3 |
| Q1009 | B-3 |
| Q1010 | B-3 |
| Q1013 | B-2 |
| Q1014 | B-2 |

P1008 TO Q6401 (POWER TR)

| | |
|---|---|
| 1 | E |
| 2 | C |
| 3 | B |

P1009 TO P6753 (FRONT LOADING MOTOR)

| | |
|---|---|
| 1 | REG +5V |
| 2 | GND |

## R & REEL MOTOR TR C.B. (VJB00A19)

P1007 TO P2004 (SERVO)

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | REG + 5 V |
| 5 | REG + 12 V |
| 6 | UNREG 16V |
| 7 | UNREG 16V |
| 8 | ―― |

P1006 TO P6004 (SYSTEM CONTROL)

| | |
|---|---|
| 1 | UNREG +20V |
| 2 | REG +12V |
| 3 | REG +5V |
| 4 | GND |
| 5 | UNREG +16V |
| 6 | POWER OFF DETECT |

P1005 TO P6662 (REAR PANEL)

| | |
|---|---|
| 1 | REG + 12V |
| 2 | REG + 5V |
| 3 | GND |
| 4 | +12V (POWER FOR REMAINING) |

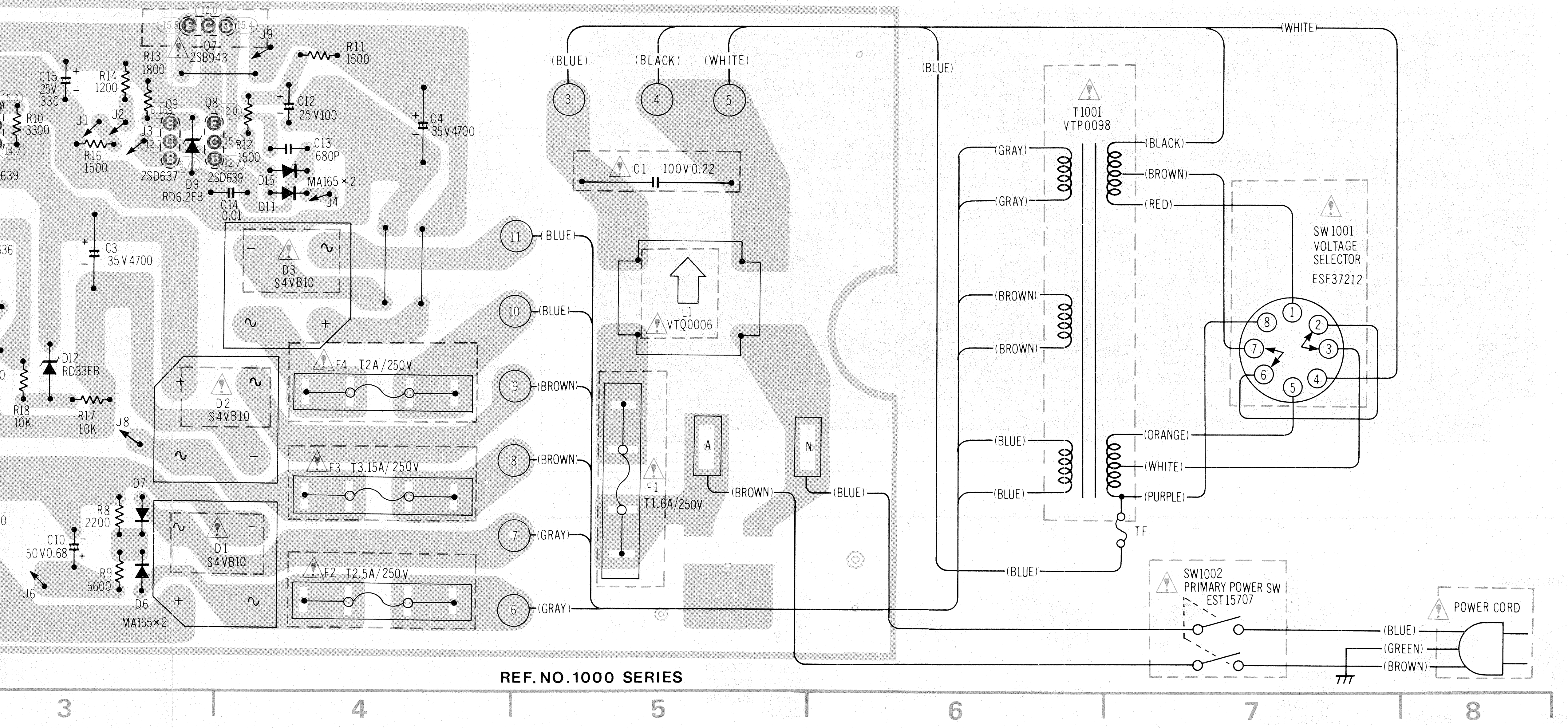
P1004 TO P4005 (AUDIO (1))

| | |
|---|---|
| 1 | REG +12V |
| 2 | GND |

SW1001 VOLTAGE SELECTOR INFORMATION

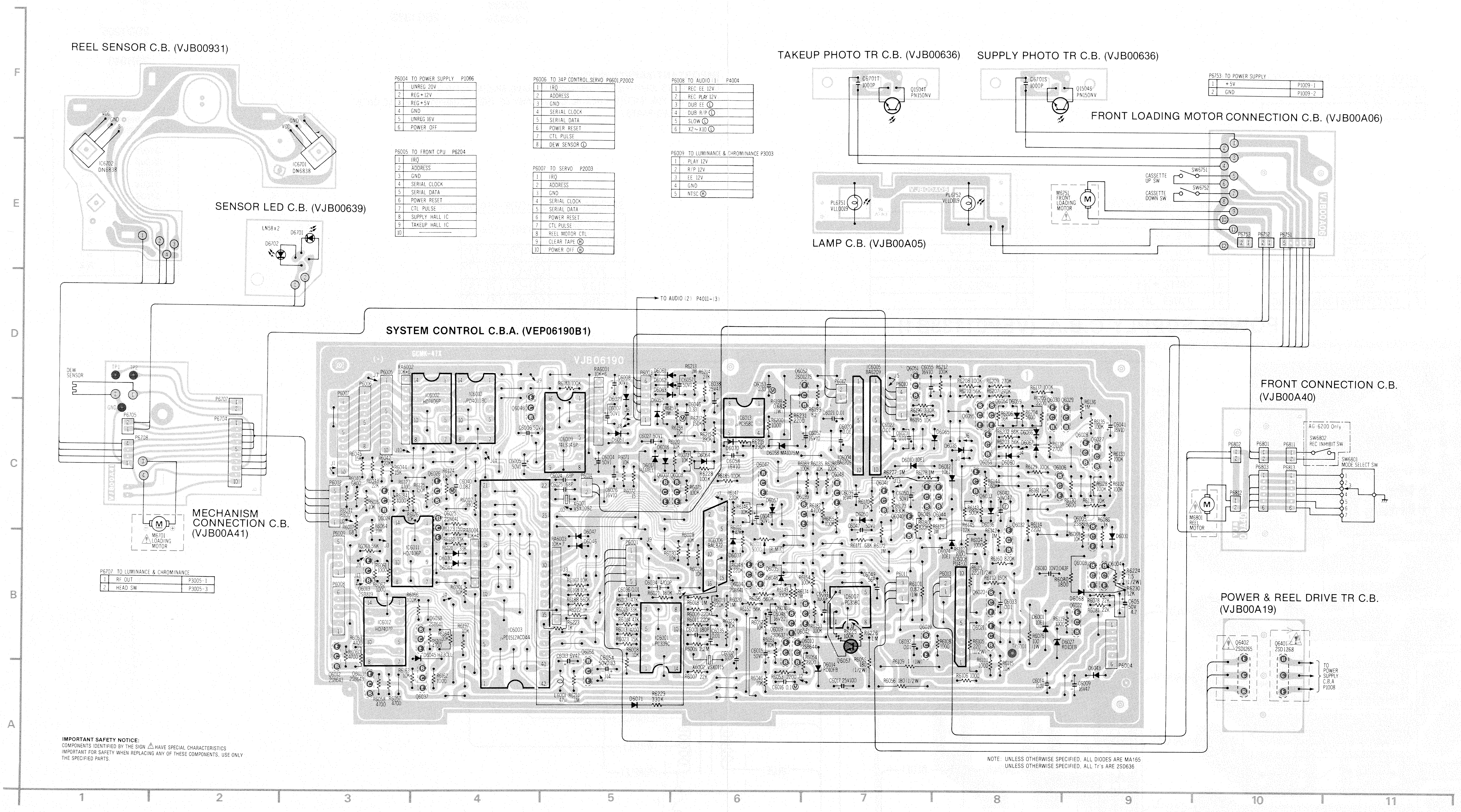
| POWER SOURCE VOLTAGE | CONNECTION |
|---|---|
| 240V | ①-②, ⑤-⑥ |
| 220V | ②-③, ⑥-⑦ |
| 110V | ③-④, ⑦-⑧ |
| 120V | ④-⑤, ⑧-① |

## POWER SUPPLY C.B.A. (VEP01138B1)


Q7
2SB943
J9
R11
1500
R13
1800
R14
1200
C15
25V
330
R10
3300
J1
J2
J3
Q9
Q8
R16
1500
2SD637
D9
RD6.2EB
2SD639
R12
1500
C12
25V100
C13
680P
D15
MA165 × 2
D11
J4
C14
0.01
C4
35V4700
C3
35V4700
D3
S4VB10
D12
RD33EB
R18
10K
R17
10K
J8
D2
S4VB10
F4 T2A/250V
F3 T3.15A/250V
D7
R8
2200
C10
50V0.68
R9
5600
D1
S4VB10
F2 T2.5A/250V
D6
MA165×2
J6
(BLUE)
(BLACK)
(WHITE)
3
4
5
(BLUE)
C1 100V0.22
11
10
9
8
7
6
(BLUE)
(BLUE)
(BROWN)
(BROWN)
(GRAY)
(GRAY)
L1
VTQ0006
F1
T1.6A/250V
A
N
(BROWN)
(BLUE)
T1001
VTP0098
(GRAY)
(GRAY)
(BROWN)
(BROWN)
(BLUE)
(BLUE)
(BLUE)
(BLACK)
(BROWN)
(RED)
(ORANGE)
(WHITE)
(PURPLE)
TF
(WHITE)
SW1001
VOLTAGE
SELECTOR
ESE37212
1
2
3
4
5
6
7
8
SW1002
PRIMARY POWER SW
EST15707
POWER CORD
(BLUE)
(GREEN)
(BROWN)
3
4
5
6
7
8

REF.NO.1000 SERIES

# SYSTEM CONTROL C.B.A. (VEP06190B1) & SMALL BOARDS


REEL SENSOR C.B. (VJB00931)
SENSOR LED C.B. (VJB00639)
MECHANISM CONNECTION C.B. (VJB00A41)
M6701 LOADING MOTOR
SYSTEM CONTROL C.B.A. (VEP06190B1)
TO AUDIO (2) P4011-(3)
TAKEUP PHOTO TR C.B. (VJB00636)
SUPPLY PHOTO TR C.B. (VJB00636)
FRONT LOADING MOTOR CONNECTION C.B. (VJB00A06)
LAMP C.B. (VJB00A05)
CASSETTE UP SW
CASSETTE DOWN SW
M6751 FRONT LOADING MOTOR
FRONT CONNECTION C.B. (VJB00A40)
AG-6200 Only
SW6802 REC INHIBIT SW
SW6801 MODE SELECT SW
M6801 REEL MOTOR
POWER & REEL DRIVE TR C.B. (VJB00A19)
TO POWER SUPPLY C.B.A P1008
DEW SENSOR
VJB06190
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
10
11

P6004 TO POWER SUPPLY P1006

| | |
|---|---|
| 1 | UNREG 20V |
| 2 | REG+12V |
| 3 | REG+5V |
| 4 | GND |
| 5 | UNREG 16V |
| 6 | POWER OFF |

P6005 TO FRONT CPU P6204

| | |
|---|---|
| 1 | IRQ |
| 2 | ADDRESS |
| 3 | GND |
| 4 | SERIAL CLOCK |
| 5 | SERIAL DATA |
| 6 | POWER RESET |
| 7 | CTL PULSE |
| 8 | SUPPLY HALL IC |
| 9 | TAKEUP HALL IC |
| 10 | ———— |

P6006 TO 34P CONTROL,SERVO P6601,P2002

| | |
|---|---|
| 1 | IRQ |
| 2 | ADDRESS |
| 3 | GND |
| 4 | SERIAL CLOCK |
| 5 | SERIAL DATA |
| 6 | POWER RESET |
| 7 | CTL PULSE |
| 8 | DEW SENSOR Ⓛ |

P6007 TO SERVO P2003

| | |
|---|---|
| 1 | IRQ |
| 2 | ADDRESS |
| 3 | GND |
| 4 | SERIAL CLOCK |
| 5 | SERIAL DATA |
| 6 | POWER RESET |
| 7 | CTL PULSE |
| 8 | REEL MOTOR CTL |
| 9 | CLEAR TAPE Ⓗ |
| 10 | POWER OFF Ⓗ |

P6008 TO AUDIO (1) P4004

| | |
|---|---|
| 1 | REC EE 12V |
| 2 | REC PLAY 12V |
| 3 | DUB EE Ⓛ |
| 4 | DUB R/P Ⓛ |
| 5 | SLOW Ⓛ |
| 6 | X2～X10 Ⓛ |

P6009 TO LUMINANCE & CHROMINANCE P3003

| | |
|---|---|
| 1 | PLAY 12V |
| 2 | R/P 12V |
| 3 | EE 12V |
| 4 | GND |
| 5 | NTSC Ⓗ |

P6753 TO POWER SUPPLY

| | | |
|---|---|---|
| 1 | +5V | P1009-1 |
| 2 | GND | P1009-2 |

P6707 TO LUMINANCE & CHROMINANCE

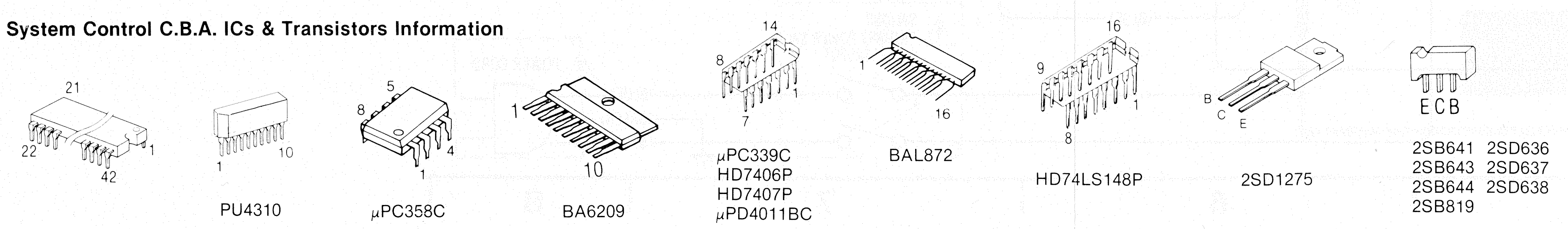
| | | |
|---|---|---|
| 1 | RF OUT | P3005-1 |
| 2 | HEAD SW | P3005-3 |

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636

| System Control C.B.A. (VEP06190B1) | |
|---|---|
| Q6003 | B-7 |
| Q6004 | B-9 |
| Q6005 | B-9 |
| Q6006 | C-9 |
| Q6007 | C-5 |
| Q6008 | C-6 |
| Q6009 | B-6 |
| Q6010 | B-6 |
| Q6011 | A-3 |
| Q6012 | B-3 |
| Q6013 | B-3 |
| Q6019 | B-7 |
| Q6020 | B-8 |
| Q6021 | B-8 |
| Q6022 | B-9 |
| Q6024 | C-3 |
| Q6025 | B-4 |
| Q6026 | C-4 |
| Q6027 | C-9 |
| Q6028 | C-9 |
| Q6029 | C-9 |
| Q6030 | C-8 |
| Q6032 | B-8 |
| Q6033 | C-8 |
| Q6034 | B-6 |
| Q6035 | B-6 |
| Q6036 | B-6 |
| Q6037 | A-4 |
| Q6038 | B-4 |
| Q6039 | C-6 |
| Q6040 | B-7 |
| Q6041 | C-7 |
| Q6042 | B-7 |
| Q6044 | C-8 |
| Q6045 | C-7 |
| Q6046 | C-4 |
| Q6047 | C-6 |
| Q6048 | C-7 |
| Q6051 | D-7 |
| Q6052 | D-6 |
| Q6053 | C-8 |
| Q6054 | C-8 |
| Q6055 | C-8 |
| Q6056 | A-5 |
| Q6057 | B-7 |
| IC6001 | B-5 |
| IC6002 | D-4 |
| IC6003 | B-4 |
| IC6004 | C-7 |
| IC6005 | C-7 |
| IC6006 | B-6 |
| IC6007 | B-7 |
| IC6008 | B-8 |
| IC6009 | C-5 |
| IC6010 | D-4 |
| IC6011 | B-3 |
| IC6012 | B-3 |
| IC6013 | C-6 |

## System Control C.B.A. ICs & Transistors Information


21
22
1
42
PU4310
1
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μPC358C
5
8
4
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BA6209
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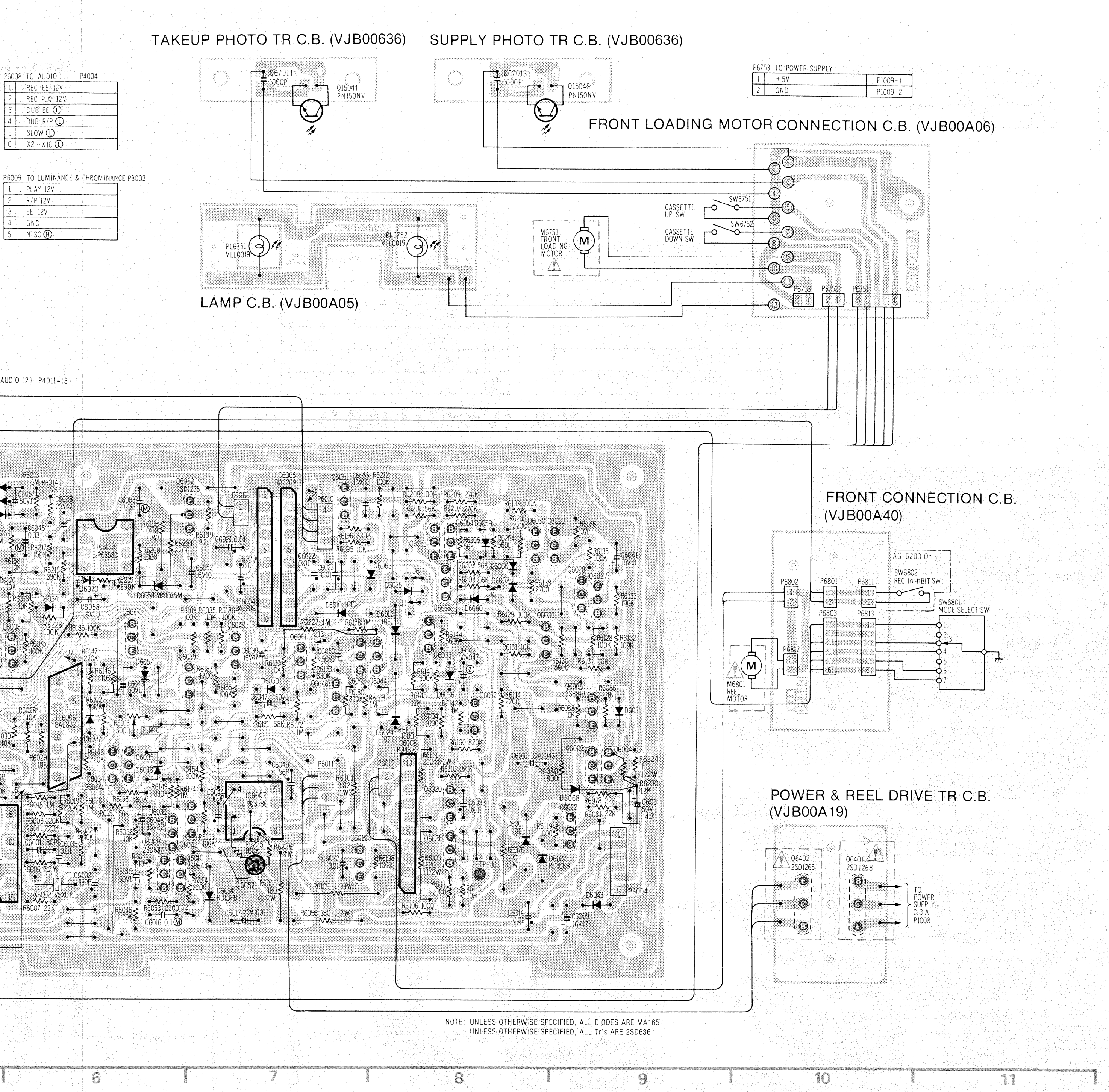
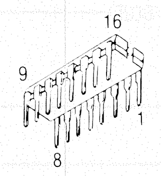
μPC339C
HD7406P
HD7407P
μPD4011BC
14
8
7
BAL872
1
16
HD74LS148P
16
9
8
1
2SD1275
B
C
E
ECB
2SB641 2SD636
2SB643 2SD637
2SB644 2SD638
2SB819

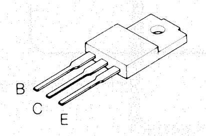
# OARDS


TAKEUP PHOTO TR C.B. (VJB00636)
C6701T 1000P
Q1504T PN150NV
SUPPLY PHOTO TR C.B. (VJB00636)
C6701S 1000P
Q1504S PN150NV
P6008 TO AUDIO (1) P4004
1 REC EE 12V
2 REC PLAY 12V
3 DUB EE Ⓛ
4 DUB R/P Ⓛ
5 SLOW Ⓛ
6 X2～X10 Ⓛ
P6009 TO LUMINANCE & CHROMINANCE P3003
1 PLAY 12V
2 R/P 12V
3 EE 12V
4 GND
5 NTSC Ⓗ
P6753 TO POWER SUPPLY
1 +5V P1009-1
2 GND P1009-2
FRONT LOADING MOTOR CONNECTION C.B. (VJB00A06)
CASSETTE UP SW
SW6751
CASSETTE DOWN SW
SW6752
M6751 FRONT LOADING MOTOR
PL6751 VLL0019
PL6752 VLL0019
LAMP C.B. (VJB00A05)
P6753
P6752
P6751
AUDIO (2) P4011-(3)
FRONT CONNECTION C.B. (VJB00A40)
AG 6200 Only
SW6802 REC INHIBIT SW
SW6801 MODE SELECT SW
P6802
P6801
P6811
P6803
P6812
M6801 REEL MOTOR
POWER & REEL DRIVE TR C.B. (VJB00A19)
Q6402 2SD1265
Q6401 2SD1268
TO POWER SUPPLY C.B.A. P1008
6
7
8
9
10
11

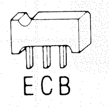
NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636



HD74LS148P



2SD1275



2SB641 2SD636
2SB643 2SD637
2SB644 2SD638
2SB819

| System Control C.B.A. (VEP06190B1) | |
|---|---|
| Q6003 | B-7 |
| Q6004 | B-9 |
| Q6005 | B-9 |
| Q6006 | C-9 |
| Q6007 | C-5 |
| Q6008 | C-6 |
| Q6009 | B-6 |
| Q6010 | B-6 |
| Q6011 | A-3 |
| Q6012 | B-3 |
| Q6013 | B-3 |
| Q6019 | B-7 |
| Q6020 | B-8 |
| Q6021 | B-8 |
| Q6022 | B-9 |
| Q6024 | C-3 |
| Q6025 | B-4 |
| Q6026 | C-4 |
| Q6027 | C-9 |
| Q6028 | C-9 |
| Q6029 | C-9 |
| Q6030 | C-8 |
| Q6032 | B-8 |
| Q6033 | C-8 |
| Q6034 | B-6 |
| Q6035 | B-6 |
| Q6036 | B-6 |
| Q6037 | A-4 |
| Q6038 | B-4 |
| Q6039 | C-6 |
| Q6040 | B-7 |
| Q6041 | C-7 |
| Q6042 | B-7 |
| Q6044 | C-8 |
| Q6045 | C-7 |
| Q6046 | C-4 |
| Q6047 | C-6 |
| Q6048 | C-7 |
| Q6051 | D-7 |
| Q6052 | D-6 |
| Q6053 | C-8 |
| Q6054 | C-8 |
| Q6055 | C-8 |
| Q6056 | A-5 |
| Q6057 | B-7 |
| | |
| IC6001 | B-5 |
| IC6002 | D-4 |
| IC6003 | B-4 |
| IC6004 | C-7 |
| IC6005 | C-7 |
| IC6006 | B-6 |
| IC6007 | B-7 |
| IC6008 | B-8 |
| IC6009 | C-5 |
| IC6010 | D-4 |
| IC6011 | B-3 |
| IC6012 | B-3 |
| IC6013 | C-6 |

## SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART

| REF. NO. | Q6003 | | | Q6004 | | | Q6005 | | | Q6006 | | | Q6007 | | | Q6008 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 0 | 0.02 | 0.64 | 0 | 7.42 | 0.02 | 7.43 | 0.56 | 7.43 | 0 | 0.03 | 0.64 | 0 | 4.72 | 0.04 | 0 | 0.04 | 0.61 |
| PLAY | 0 | 0.02 | 0.63 | 0 | 7.44 | 0.02 | 7.45 | 0.46 | 7.44 | 0 | 0.03 | 0.64 | 0 | 4.72 | 0.04 | 0 | 0.04 | 0.61 |
| REC | 0 | 0.02 | 0.64 | 0 | 7.44 | 0.02 | 7.45 | 0.45 | 7.44 | 0 | 0.03 | 0.64 | 0 | 4.73 | 0.04 | 0 | 0.04 | 0.61 |
| F.F | 0 | 0.02 | 0.63 | 0 | 7.39 | 0.02 | 7.40 | 0.57 | 7.39 | 0 | 0.05 | 0.62 | 0 | 4.72 | 0.04 | 0 | 0.04 | 0.61 |
| REW | 0 | 0.02 | 0.63 | 0 | 7.46 | 0.02 | 7.47 | 0 | 7.46 | 0 | 0.05 | 0.62 | 0 | 4.72 | 0.04 | 0 | 0.04 | 0.61 |
| REF. NO. | Q6009 | | | Q6010 | | | Q6011 | | | Q6012 | | | Q6013 | | | Q6019 | | |
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 0 | 9.05 | −0.27 | 9.71 | 2.16 | 9.56 | 11.9 | 11.9 | 11.2 | 11.9 | 0 | 11.9 | 11.9 | 11.7 | 11.2 | 0.65 | 0.65 | 1.38 |
| PLAY | 0.01 | 9.00 | −0.26 | 9.66 | 2.15 | 9.53 | 11.9 | 0.30 | 11.9 | 11.9 | 0 | 11.9 | 11.9 | 11.8 | 11.2 | 0.89 | 0.90 | 1.62 |
| REC | 0.01 | 9.01 | 0.26 | 9.66 | 2.17 | 9.53 | 11.9 | 11.9 | 11.2 | 11.9 | 11.9 | 11.2 | 11.9 | 0.16 | 11.9 | 0.89 | 0.90 | 1.63 |
| F.F | 0 | 9.00 | −0.26 | 9.66 | 2.17 | 9.53 | 11.9 | 11.9 | 11.2 | 11.9 | 0 | 11.9 | 11.9 | 11.7 | 11.2 | 0.88 | 0.94 | 1.65 |
| REW | 0 | 8.98 | −0.26 | 9.66 | 2.17 | 9.53 | 11.9 | 11.9 | 11.2 | 11.9 | 0 | 11.9 | 11.9 | 11.7 | 11.2 | 0.15 | 8.74 | 0.06 |
| REF. NO. | Q6020 | | | Q6021 | | | Q6022 | | | Q6024 | | | Q6025 | | | Q6026 | | |
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 0 | 0.65 | 0.03 | 0 | 0.03 | 0.68 | 8.64 | 12.0 | 9.30 | 0 | 4.29 | 0.09 | 4.90 | 0 | 4.86 | 0 | 4.85 | −0.07 |
| PLAY | 0.18 | 2.87 | 0.03 | 0 | 0.03 | 0.68 | 8.66 | 11.9 | 9.31 | 0 | 4.30 | 0.08 | 4.87 | 0 | 4.85 | 0 | 4.79 | 0 |
| REC | 0.18 | 2.78 | 0.03 | 0 | 0.03 | 0.68 | 8.65 | 12.0 | 9.31 | 0 | 4.32 | 0.09 | 4.87 | 0 | 4.85 | 0 | 4.85 | 0 |
| F.F | 0.15 | 8.72 | 0.03 | 0 | 0.03 | 0.67 | 8.66 | 11.9 | 9.32 | 0 | 4.30 | 0.08 | 4.87 | 0 | 4.86 | 0 | 4.82 | 0 |
| REW | 0.88 | 0.94 | 1.64 | 0 | 1.64 | 0.06 | 8.66 | 11.9 | 9.32 | 0 | 4.30 | 0.08 | 4.87 | 0 | 4.85 | 0 | 4.82 | 0 |
| REF. NO. | Q6027 | | | Q6028 | | | Q6029 | | | Q6030 | | | Q6032 | | | Q6033 | | |
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 3.32 | 2.87 | 3.26 | 2.46 | 7.43 | 2.88 | 0 | 0.03 | 0.58 | 0 | 0.58 | 0.03 | 0 | 0.05 | −0.05 | 0 | 0.05 | −0.12 |
| PLAY | 3.32 | 2.90 | 3.27 | 2.42 | 7.45 | 2.89 | 0 | 0.03 | 0.58 | 0 | 0.47 | 0.03 | 0 | 0.17 | 0.08 | 0 | 1.82 | 0 |
| REC | 3.33 | 2.90 | 3.27 | 2.41 | 7.45 | 2.88 | 0 | 0.03 | 0.58 | 0 | 0.46 | 0.03 | 0 | 0.17 | 0.06 | 0 | 1.78 | 0 |
| F.F | 3.29 | 2.87 | 3.25 | 2.42 | 7.40 | 2.88 | 0 | 0.03 | 0.58 | 0 | 0.58 | 0.03 | 0 | 0.14 | 0.08 | 0 | 9.72 | 0 |
| REW | 0.03 | 0 | 0.59 | 0 | 7.47 | 0 | 0 | 0.61 | 0 | 0 | 0 | 0.61 | 0 | 0 | 0.53 | 0 | 9.46 | 0 |
| REF. NO. | Q6034 | | | Q6035 | | | Q6036 | | | Q6037 | | | Q6038 | | | Q6039 | | |
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 0 | 0.05 | 0.15 | 0.04 | 0.01 | 0.11 | 0 | 0.04 | 0.58 | 0 | 0.01 | 0.68 | 4.90 | 4.76 | 4.12 | 0 | 0.05 | 0.07 |
| PLAY | 4.33 | 1.83 | 3.93 | 1.89 | 4.32 | 0.10 | 0.01 | 0.05 | 0.58 | 0 | 0.01 | 0.68 | 4.87 | 4.75 | 4.07 | 0 | 0.18 | 0.12 |
| REC | 4.33 | 1.79 | 4.73 | 1.79 | 4.33 | 0.37 | 0 | 0.05 | 0.57 | 0 | 0.01 | 0.68 | 4.89 | 4.79 | 4.12 | 0 | 0.19 | 0.11 |
| F.F | 9.52 | 9.52 | 12.0 | 9.54 | 9.55 | 10.1 | 0 | 10.5 | 0 | 0 | 0.01 | 0.68 | 4.85 | 4.76 | 4.10 | 0 | 0.05 | 0.12 |
| REW | 9.58 | 9.58 | 11.9 | 9.58 | 9.60 | 10.2 | 0.01 | 10.7 | 0 | 0 | 0.01 | 0.68 | 4.82 | 4.73 | 4.10 | 0 | 0.05 | 0.12 |
| REF. NO. | Q6040 | | | Q6041 | | | Q6042 | | | Q6044 | | | Q6045 | | | Q6046 | | |
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 0 | 0.03 | −0.09 | 0 | 0.01 | 0.54 | 0 | 0 | 0.23 | 0 | 0 | 0.28 | 0 | 0.01 | 0.54 | 0 | 0.13 | 0.66 |
| PLAY | 0 | 1.82 | 0 | 0 | 0.01 | 0.55 | 0.01 | 0.02 | 0.52 | 0 | 0.02 | 0.48 | 0 | 0.18 | 0.02 | 0 | 0.14 | 0 |
| REC | 0 | 1.81 | 0 | 0 | 0.01 | 0.55 | 0.01 | 0.02 | 0.50 | 0 | 0.01 | 0.38 | 0 | 0.18 | 0.01 | 0 | 12.0 | −0.03 |
| F.F | 0 | 9.60 | 0.03 | 0 | 0.12 | 0 | 0 | 10.3 | 0 | 0 | 0.02 | 0.47 | 0 | 0.17 | 0.02 | 0 | 0.13 | 0.66 |
| REW | 0 | 9.59 | 0.02 | 0 | 0.11 | 0 | 0 | 10.5 | 0 | 0 | 0.01 | 0.41 | 0 | 0.15 | 0.01 | 0 | 0.13 | 0.68 |
| REF. NO. | Q6047 | | | Q6048 | | | Q6051 | | | Q6052 | | | Q6053 | | | Q6054 | | |
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 0 | 0 | −0.03 | 0 | 0.05 | 0.03 | 0 | 0.02 | 0.57 | 7.57 | 14.1 | 8.51 | 0 | 0.08 | 0.65 | 0 | 4.86 | 0.05 |
| PLAY | 0 | 1.82 | 0.04 | 0 | 0.18 | 0.11 | 0 | 0.02 | 0.57 | 7.58 | 13.8 | 8.45 | 0 | 0.08 | 0.64 | 0 | 4.90 | 0.05 |
| REC | 0 | 1.81 | 0.04 | 0 | 0.18 | 0.10 | 0 | 0.02 | 0.57 | 7.57 | 13.6 | 8.52 | 0 | 0.09 | 0.65 | 0 | 4.88 | 0.05 |
| F.F | 0 | 9.53 | 0.04 | 0 | 0.05 | 0.11 | 7.58 | 13.7 | 8.44 | 7.58 | 13.7 | 8.44 | 0 | 0.08 | 0.64 | 0 | 4.93 | 0.26 |
| REW | 0 | 9.51 | 0.04 | 0 | 0.05 | 0.11 | 0 | 0.50 | 0 | 7.56 | 13.6 | 8.55 | 0 | 11.9 | 0.02 | 0 | 0.06 | 0.68 |
| REF. NO. | Q6055 | | | Q6056 | | | Q6057 | | | | | | Q6402 | | | | | |
| MODE | E | C | B | E | C | B | E | C | B | | | | E | C | B | | | |
| STOP | 0 | 0.05 | −0.07 | 0 | 0.29 | −0.51 | 0 | 0.07 | −0.18 | | | | 0.40 | 14.1 | 0.12 | | | |
| PLAY | 0 | 0.05 | 0.01 | 0.01 | 0 | 0.48 | 0.01 | 1.79 | 0.02 | | | | 4.40 | 13.7 | 3.79 | | | |
| REC | 0 | 0.05 | 0 | 0.01 | 0.20 | −0.12 | 0 | 1.77 | 0 | | | | 4.43 | 13.7 | 3.80 | | | |
| F.F | 0 | 0.26 | 0.15 | 0.01 | 0 | 0.04 | 0.01 | 10.3 | 0.01 | | | | 10.3 | 13.7 | 9.65 | | | |
| REW | 0 | 0.68 | 0.21 | 0.01 | 0.01 | 0.04 | 0.01 | 10.3 | 0.01 | | | | 10.5 | 13.6 | 10.6 | | | |

## SYSTEM CONTROL ICs D.C. VOLTAGE CHART

| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | | | | |
| STOP | 4.89 | 4.87 | 4.90 | 3.06 | 3.48 | 3.06 | 3.48 | 0 | 0.26 | 2.11 | 2.45 | 0 | 2.18 | 4.82 | | | | | | |
| PLAY | 4.87 | 4.84 | 4.84 | 3.04 | 3.43 | 3.03 | 3.44 | 0 | 0.27 | 2.09 | 2.44 | 0.01 | 2.14 | 4.83 | | | | | | |
| REC | 4.89 | 4.89 | 4.90 | 3.04 | 3.48 | 3.06 | 3.48 | 0 | 0.27 | 2.12 | 2.45 | 0.01 | 2.12 | 4.81 | | | | | | |
| F.F | 4.84 | 4.87 | 4.88 | 3.04 | 3.46 | 3.04 | 3.46 | 0 | 0.26 | 2.11 | 2.44 | 0.01 | 2.15 | 4.82 | | | | | | |
| REW | 4.86 | 4.82 | 4.87 | 3.04 | 3.44 | 3.02 | 3.45 | 0 | 0.26 | 2.11 | 2.45 | 0.01 | 2.19 | 4.81 | | | | | | |
| REF. NO. | IC6002 | | | | | | | | | | | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | | | | |
| STOP | 0.06 | 4.78 | 0.31 | 4.47 | 3.31 | 0.31 | 0 | 0.07 | 4.85 | 4.26 | 0.51 | 2.48 | 0.98 | 4.90 | | | | | | |
| PLAY | 0.07 | 4.79 | 0.31 | 4.45 | 3.16 | 0.31 | 0 | 0.07 | 4.83 | 4.22 | 0.51 | 2.48 | 0.93 | 4.88 | | | | | | |
| REC | 0.07 | 4.79 | 0.32 | 4.46 | 3.16 | 0.32 | 0 | 0.07 | 4.83 | 4.22 | 0.51 | 2.48 | 0.93 | 4.88 | | | | | | |
| F.F | 0.06 | 4.77 | 0.31 | 4.46 | 3.16 | 0.31 | 0 | 0.07 | 4.82 | 4.24 | 0.51 | 2.48 | 0.93 | 4.88 | | | | | | |
| REW | 0.07 | 4.79 | 0.30 | 4.46 | 4.40 | 0.30 | 0 | 0.07 | 4.84 | 4.26 | 0.51 | 2.48 | 1.03 | 4.86 | | | | | | |

| REF. NO. | IC6003 | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| STOP | 3.73 | 3.81 | 0.04 | 3.77 | 3.63 | 3.53 | 3.32 | 0.04 | 4.26 | 0.71 | 3.39 | 4.81 | 4.89 | 4.89 | 4.32 | 0.06 | 1.04 | 0.52 | 2.18 | 0.01 |
| PLAY | 0.04 | 3.47 | 3.44 | 3.46 | 3.44 | 3.41 | 3.32 | 3.43 | 4.24 | 0.71 | 3.16 | 4.82 | 4.89 | 4.87 | 4.30 | 0.06 | 0.93 | 0.52 | 2.11 | 0.01 |
| REC | 3.46 | 0.05 | 0.05 | 0.05 | 3.46 | 3.43 | 3.34 | 0.05 | 4.25 | 0.71 | 3.18 | 4.84 | 4.89 | 4.89 | 4.32 | 0.07 | 0.93 | 0.53 | 2.10 | 0.01 |
| F.F | 3.42 | 3.47 | 0.05 | 3.44 | 3.44 | 3.41 | 3.30 | 0.04 | 4.25 | 0.71 | 3.17 | 4.82 | 4.84 | 4.87 | 4.27 | 0.07 | 0.93 | 0.52 | 2.11 | 0.01 |
| REW | 3.59 | 3.69 | 0.05 | 3.58 | 3.49 | 3.43 | 0.03 | 0.04 | 4.25 | 0.71 | 3.24 | 4.83 | 4.85 | 4.86 | 4.28 | 0.07 | 0.96 | 0.51 | 2.16 | 0.01 |

| REF. NO. | IC6003 | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| STOP | 0.01 | 1.78 | 0.03 | 4.75 | 4.42 | 0.13 | 4.48 | 4.90 | 4.90 | 0.01 | 0 | 0.02 | 0.04 | 0.04 | 0.12 | 0.12 | 0.04 | 0.04 | 0.04 | 0.23 |
| PLAY | 0.01 | 1.78 | 1.19 | 4.72 | 4.79 | 0.13 | 0.12 | — | 4.87 | 0.01 | 0 | 0 | 0.04 | 0.04 | 0.12 | 0.12 | 0.04 | 4.83 | 0.04 | 0.23 |
| REC | 0.01 | 1.80 | 1.20 | 4.74 | 4.11 | 0.13 | 0.13 | — | 4.88 | 0.01 | 0 | 0 | 0.04 | 0.04 | 0.12 | 0.12 | 0.04 | 4.88 | 0.04 | 0.24 |
| F.F | 0.01 | 1.78 | 1.19 | 4.69 | 0.10 | 0.13 | 4.08 | — | 4.89 | 0.01 | 0 | 0 | 0.04 | 0.04 | 0.12 | 0.12 | 0.04 | 0.04 | 4.85 | 0.24 |
| REW | 0.01 | 1.78 | 1.14 | 4.74 | 0.11 | 0.13 | 4.25 | — | 4.89 | 0.01 | 0 | 0 | 0.04 | 0.04 | 0.12 | 0.12 | 0.04 | 0.04 | 0.23 | 0.24 |

| REF. NO. | IC6003 | |
|---|---|---|
| MODE | 41 | 42 |
| STOP | 4.81 | 4.81 |
| PLAY | 4.78 | 4.78 |
| REC | 4.80 | 4.80 |
| F.F | 4.77 | 4.80 |
| REW | 4.80 | 4.80 |

| REF. NO. | IC6004 | | | | | | | | | | IC6005 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 · | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| STOP | 0 | 0.49 | 0.89 | 0.83 | 0.04 | 0.04 | 7.57 | 7.57 | 0.91 | 0.48 | 0 | 0.47 | 0.88 | 0.71 | 0.12 | 0.11 | 7.57 | 7.57 | 0.90 | 0.47 |
| PLAY | 0 | 0.49 | 0.89 | 1.21 | 0.04 | 0.04 | 7.57 | 7.57 | 0.91 | 0.48 | 0 | 0.47 | 0.88 | 1.28 | 0.12 | 0.12 | 7.57 | 7.57 | 0.90 | 0.47 |
| REC | 0 | 0.49 | 0.89 | 0.97 | 0.04 | 0.04 | 7.57 | 7.57 | 0.91 | 0.49 | 0 | 0.47 | 0.88 | 0.97 | 0.12 | 0.12 | 7.57 | 7.57 | 0.90 | 0.47 |
| F.F | 0 | 0.48 | 0.88 | 1.23 | 0.04 | 0.04 | 7.57 | 7.57 | 0.90 | 0.48 | 0 | 0.48 | 0.87 | 1.31 | 0.12 | 0.12 | 7.57 | 7.57 | 0.89 | 0.47 |
| REW | 0 | 0.49 | 0.89 | 0.89 | 0.04 | 0.04 | 7.56 | 7.57 | 0.91 | 0.49 | 0 | 0.48 | 0.87 | 1.29 | 0.12 | 0.12 | 7.57 | 7.57 | 0.89 | 0.48 |

| REF. NO | IC6006 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| STOP | 0.02 | 0.04 | 0.04 | 0.04 | 0.02 | 0.33 | 0.36 | 0.01 | 0.12 | 0.37 | 0.01 | 0 | 0.99 | 0 | 0 | 12.0 |
| PLAY | 0.02 | 0.04 | 4.88 | 0.04 | 0.18 | 0.85 | 0.62 | 4.33 | 3.71 | 0.62 | 0.01 | 0.64 | 3.70 | 0.01 | 0.01 | 12.0 |
| REC | 0.02 | 0.05 | 4.88 | 0.05 | 0.18 | 0.61 | 0.61 | 4.03 | 4.73 | 0.54 | 0.01 | 0.55 | 3.70 | 0.01 | 0.01 | 12.0 |
| F.F | 0.02 | 4.90 | 0.04 | 0.05 | 0.17 | 0.28 | 0.01 | 11.3 | 9.61 | 0.24 | 0.01 | 0.01 | 0.99 | 0.01 | 0.01 | 12.0 |
| REW | 0.02 | 4.87 | 0.04 | 0.04 | 0.14 | 0.29 | 0.01 | 9.56 | 9.68 | 0.32 | 0.01 | 0.01 | 0.99 | 0.01 | 0.01 | 12.0 |

| REF. NO. | IC6007 | | | | | | | | | | IC6008 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| STOP | 0.41 | 0.08 | 0.06 | 0 | 0.02 | 0.05 | 0 | 14.0 | | | 0 | 0.65 | 0.01 | 0 | 0.01 | 0.65 | 0.01 | 0.65 | 0.01 | 0.65 |
| PLAY | 4.34 | 1.79 | 1.87 | 0 | 0.21 | 0.18 | 3.90 | 13.7 | | | 0.15 | 0.92 | 0.23 | 0.18 | 2.74 | 2.10 | 2.73 | 2.80 | 0.24 | 2.81 |
| REC | 4.28 | 2.23 | 1.77 | 0 | 0.23 | 0.18 | 3.90 | 13.7 | | | 0.18 | 0.89 | 0.24 | 0.18 | 2.68 | 2.05 | 2.67 | 2.74 | 0.24 | 2.73 |
| F.F | 10.6 | 10.4 | 9.95 | 0 | 0.17 | 0.06 | 12.4 | 13.7 | | | 0.18 | 0.92 | 0.20 | 0.17 | 8.83 | 8.12 | 8.84 | 8.88 | 0.21 | 8.90 |
| REW | 10.4 | 10.3 | 9.58 | 0 | 0.15 | 0.05 | 12.5 | 13.7 | | | 0.17 | 0.17 | 8.85 | 0.92 | 0.21 | 8.95 | 0.22 | 8.30 | 8.89 | 8.93 |

| REF. NO. | IC6009 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| STOP | 4.86 | 4.89 | 4.51 | 4.89 | 0 | 4.64 | 0.13 | 0 | 4.44 | 4.90 | 4.87 | 0.60 | 4.89 | 0.12 | 4.36 | 4.89 |
| PLAY | 4.88 | 4.88 | 0 | 4.88 | 0 | 0.13 | 0.13 | 0 | 4.10 | 4.86 | 4.88 | 4.88 | 4.86 | 0.12 | 4.11 | 4.88 |
| REC | 4.88 | 4.86 | 0 | 4.88 | 0 | 0.13 | 0.13 | 0 | 4.10 | 4.88 | 4.87 | 4.84 | 4.83 | 0.12 | 4.11 | 4.88 |
| F.F | 4.88 | 4.89 | 4.51 | 4.87 | 0 | 4.51 | 0.13 | 0 | 0.11 | 4.88 | 4.89 | 4.89 | 0.61 | 0.12 | 4.42 | 4.90 |
| REW | 4.87 | 4.90 | 4.50 | 4.86 | 0 | 4.53 | 0.13 | 0 | 0.11 | 4.90 | 4.87 | 4.90 | 0.61 | 0.12 | 4.42 | 4.90 |

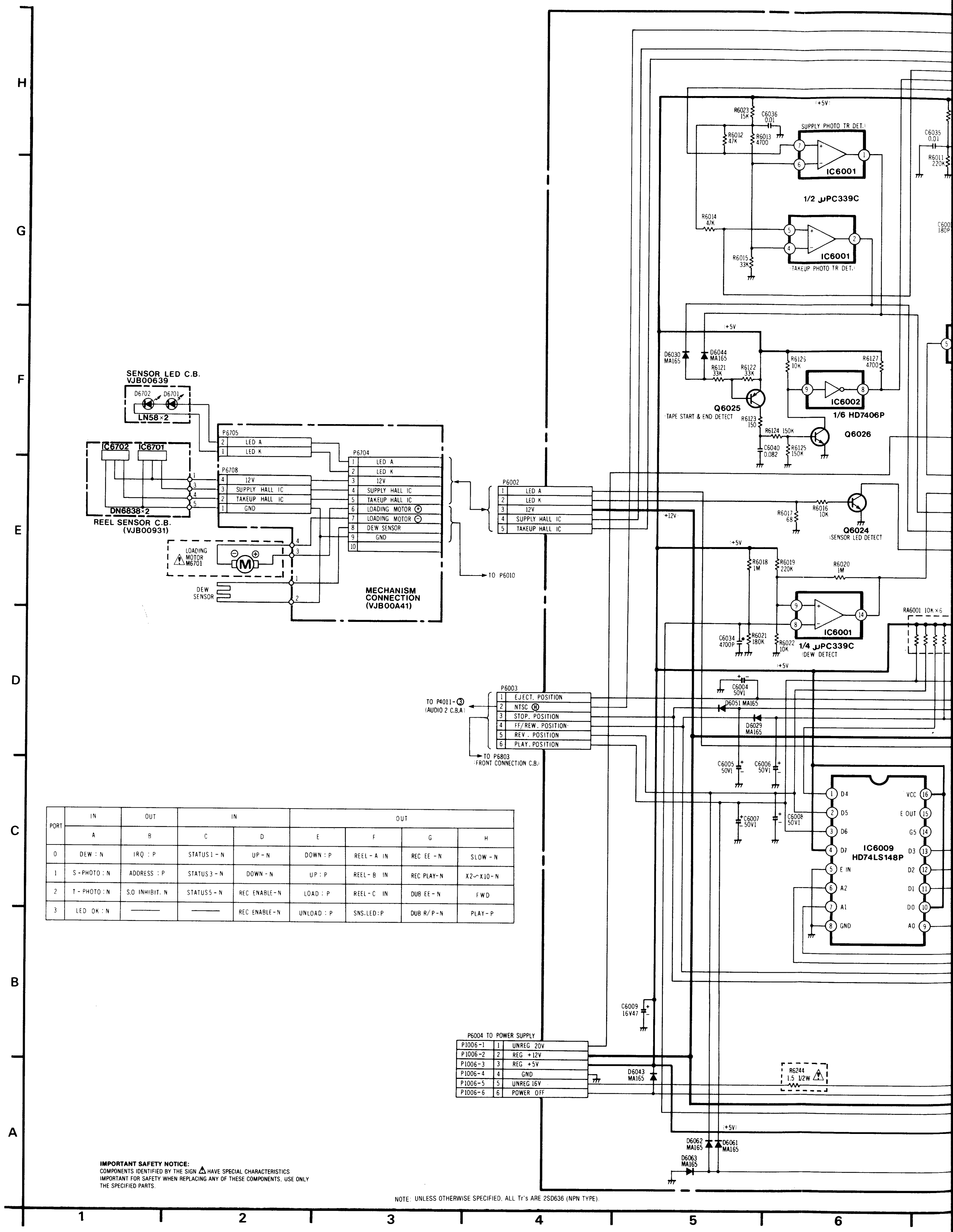
| REF. NO. | IC6010 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| STOP | 2.51 | 4.11 | 2.46 | 4.87 | 2.46 | 2.46 | 0 | 4.11 | 2.41 | 2.41 | 2.41 | 2.51 | 2.51 | 4.89 |
| PLAY | 2.51 | — | — | — | — | — | 0 | — | 2.41 | — | 2.41 | 2.51 | 2.51 | 4.88 |
| REC | 2.51 | — | — | — | — | — | 0 | — | 2.41 | — | — | 2.51 | 2.51 | 4.88 |
| F.F | 2.51 | — | — | — | — | — | 0 | — | 2.41 | — | 2.44 | 2.51 | 2.51 | 4.88 |
| REW | 2.51 | — | — | — | — | — | 0 | — | 2.41 | — | 2.44 | 2.51 | 2.51 | 4.90 |

| REF. NO. | IC6011 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| STOP | 3.75 | 0.07 | 2.08 | 0.05 | 2.03 | 0.05 | 0 | 5.62 | 0.04 | 0.06 | 2.05 | 0.05 | 1.97 | 4.89 |
| PLAY | 0.04 | 4.82 | 1.79 | 0.06 | 1.79 | 0.05 | 0 | 0.14 | 3.41 | 0.06 | 1.79 | 0.06 | 1.79 | 4.89 |
| REC | 3.45 | 0.07 | 1.80 | 0.05 | 1.79 | 0.05 | 0 | 12.0 | 0.04 | 0.06 | 1.80 | 0.05 | 1.80 | 4.88 |
| F.F | 3.62 | 0.07 | 1.96 | 0.05 | 1.92 | 0.05 | 0 | 5.62 | 0.04 | 0.06 | 2.13 | 0.06 | 2.02 | 4.87 |
| REW | 3.64 | 0.07 | 2.08 | 0.05 | 2.06 | 0.05 | 0 | 5.62 | 0.04 | 0.06 | 2.05 | 0.06 | 1.99 | 4.89 |

| REF. NO. | IC6012 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| STOP | 3.56 | 11.9 | 3.77 | 11.9 | 3.68 | 11.9 | 0 | 0.08 | 0.06 | 0.06 | 0.04 | 11.9 | 3.65 | 4.72 |
| PLAY | 3.38 | 11.9 | 3.44 | 11.9 | 3.44 | 11.9 | 0 | 11.9 | 4.80 | 11.9 | 3.41 | 11.9 | 3.41 | 4.71 |
| REC | 3.42 | 11.9 | 0.05 | 0.06 | 0.05 | 0.08 | 0 | 0.08 | 0.07 | 0.06 | 0.05 | 11.9 | 3.44 | 4.78 |
| F.F | 3.61 | 11.9 | 3.64 | 11.9 | 3.68 | 11.9 | 0 | 0.08 | 0.07 | 0.06 | 0.05 | 11.9 | 3.68 | 4.78 |
| REW | 3.61 | 11.9 | 3.66 | 11.9 | 3.67 | 11.9 | 0 | 0.08 | 0.07 | 0.06 | 0.05 | 11.9 | 3.68 | 4.76 |

| REF. NO. | IC6013 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| STOP | 8.51 | 7.57 | 7.56 | 0 | 0.15 | 1.36 | 0 | 14.1 |
| PLAY | 8.47 | 7.57 | 7.56 | 0 | 0.09 | 1.35 | 0 | 13.7 |
| REC | 8.48 | 7.57 | 7.56 | 0 | 0.09 | 1.36 | 0 | 13.7 |
| F.F | 8.50 | 7.57 | 7.57 | 0 | 0.18 | 1.36 | 0 | 13.7 |
| REW | 8.57 | 7.57 | 7.57 | 0 | 0.15 | 1.36 | 0 | 13.7 |

# SYSTEM CONTROL SCHEMATIC DIAGRAM

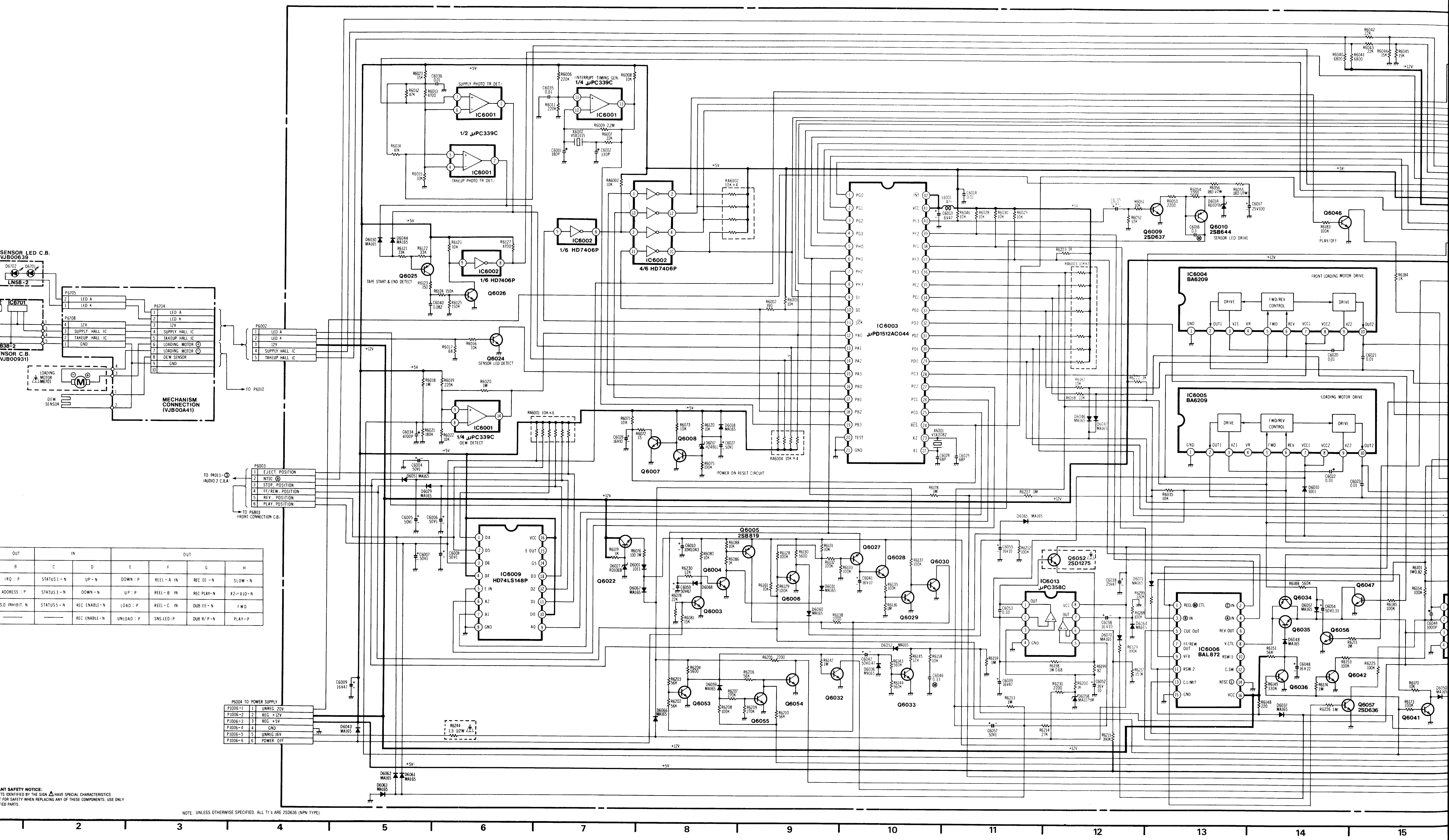

H
G
F
E
D
C
B
A
1
2
3
4
5
6
SENSOR LED C.B.
VJB00639
D6702
D6701
LN58-2
IC6702
IC6701
DN6838-2
REEL SENSOR C.B.
(VJB00931)
P6705
LED A
LED K
P6708
12V
SUPPLY HALL IC
TAKEUP HALL IC
GND
P6704
LOADING MOTOR
DEW SENSOR
LOADING MOTOR M6701
DEW SENSOR
MECHANISM CONNECTION (VJB00A41)
TO P6010
P6002
P6003
EJECT. POSITION
NTSC
STOP. POSITION
FF/REW. POSITION
REV . POSITION
PLAY. POSITION
TO P4011-③ (AUDIO 2 C.B.)
TO P6803 (FRONT CONNECTION C.B.)
SUPPLY PHOTO TR DET.
IC6001
1/2 μPC339C
TAKEUP PHOTO TR DET.
Q6025
TAPE START & END DETECT
IC6002
1/6 HD7406P
Q6026
Q6024
SENSOR LED DETECT
IC6001
1/4 μPC339C
DEW DETECT
IC6009
HD74LS148P
+5V
+12V
P6004 TO POWER SUPPLY
P1006-1
UNREG 20V
P1006-2
REG +12V
P1006-3
REG +5V
P1006-4
GND
P1006-5
UNREG 16V
P1006-6
POWER OFF

| PORT | IN | OUT | IN | | OUT | | | |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H |
| 0 | DEW : N | IRQ : P | STATUS1 - N | UP - N | DOWN : P | REEL - A IN | REC EE - N | SLOW - N |
| 1 | S-PHOTO : N | ADDRESS : P | STATUS3 - N | DOWN - N | UP : P | REEL - B IN | REC PLAY-N | X2∽X10-N |
| 2 | T-PHOTO : N | S.O INHIBIT. N | STATUS5 - N | REC ENABLE-N | LOAD : P | REEL - C IN | DUB EE - N | FWD |
| 3 | LED OK : N | ——— | ——— | REC ENABLE-N | UNLOAD : P | SNS.LED:P | DUB R/P-N | PLAY-P |

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE: UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636 (NPN TYPE).

# M CONTROL SCHEMATIC DIAGRAM


SENSOR LED C.B.
VJB00639
D6702
D6701
LN58×2
IC6701
838×2
NSOR C.B.
(VJB00931)
P6705
LED A
LED K
P6708
12V
SUPPLY HALL IC
TAKEUP HALL IC
GND
P6704
LOADING MOTOR ⊕
LOADING MOTOR ⊖
DEW SENSOR
LOADING MOTOR M6701
DEW SENSOR
MECHANISM CONNECTION (VJB00A41)
P6002
TO P6010
P6003
EJECT. POSITION
NTSC Ⓗ
STOP. POSITION
FF/REW. POSITION
REV. POSITION
PLAY. POSITION
TO P4011-③ (AUDIO 2 C.B.A)
TO P6803 (FRONT CONNECTION C.B.)
P6004 TO POWER SUPPLY
P1006-1 1 UNREG 20V
P1006-2 2 REG +12V
P1006-3 3 REG +5V
P1006-4 4 GND
P1006-5 5 UNREG 16V
P1006-6 6 POWER OFF
SUPPLY PHOTO TR DET.
IC6001
1/2 μPC339C
TAKEUP PHOTO TR DET.
INTERRUPT TIMING GEN.
1/4 μPC339C
X6002 VSX0115
IC6002
1/6 HD7406P
4/6 HD7406P
RA6002 10K×4
TAPE START & END DETECT
Q6025
Q6026
Q6024
SENSOR LED DETECT
1/4 μPC339C
DEW DETECT
RA6001 10K×6
Q6007
Q6008
POWER ON RESET CIRCUIT
RA6004 10K×4
IC6003
μPD1512AC044
X6001 VSA0082
RA6003 10K×7
IC6009
HD74LS148P
Q6022
Q6005
2SB819
Q6004
Q6003
Q6006
Q6027
Q6028
Q6029
Q6030
Q6032
Q6033
Q6053
Q6054
Q6055
R6244 1.5 1/2W
Q6009
2SD637
Q6010
2SB644
SENSOR LED DRIVE
Q6046
PLAY/OFF
IC6004
BA6209
FRONT LOADING MOTOR DRIVE
IC6005
BA6209
LOADING MOTOR DRIVE
DRIVE
FWD/REV CONTROL
IC6013
μPC358C
Q6052
2SD1275
IC6006
BAL872
Q6034
Q6035
Q6036
Q6042
Q6047
Q6056
Q6057
2SD636
Q6041
+5V
+12V
2
3
4
5
6
7
8
9
10
11
12
13
14
15

|  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| OUT | IN |  | OUT |  |  |  |
| B | C | D | E | F | G | H |
| IRQ : P | STATUS 1 - N | UP - N | DOWN : P | REEL - A IN | REC EE - N | SLOW - N |
| ADDRESS : P | STATUS 3 - N | DOWN - N | UP : P | REEL - B IN | REC PLAY - N | X2∽X10 - N |
| S.O INHIBIT. N | STATUS 5 - N | REC ENABLE - N | LOAD : P | REEL - C IN | DUB EE - N | FWD |
| ——— | ——— | REC ENABLE - N | UNLOAD : P | SNS.LED : P | DUB R/P - N | PLAY - P |

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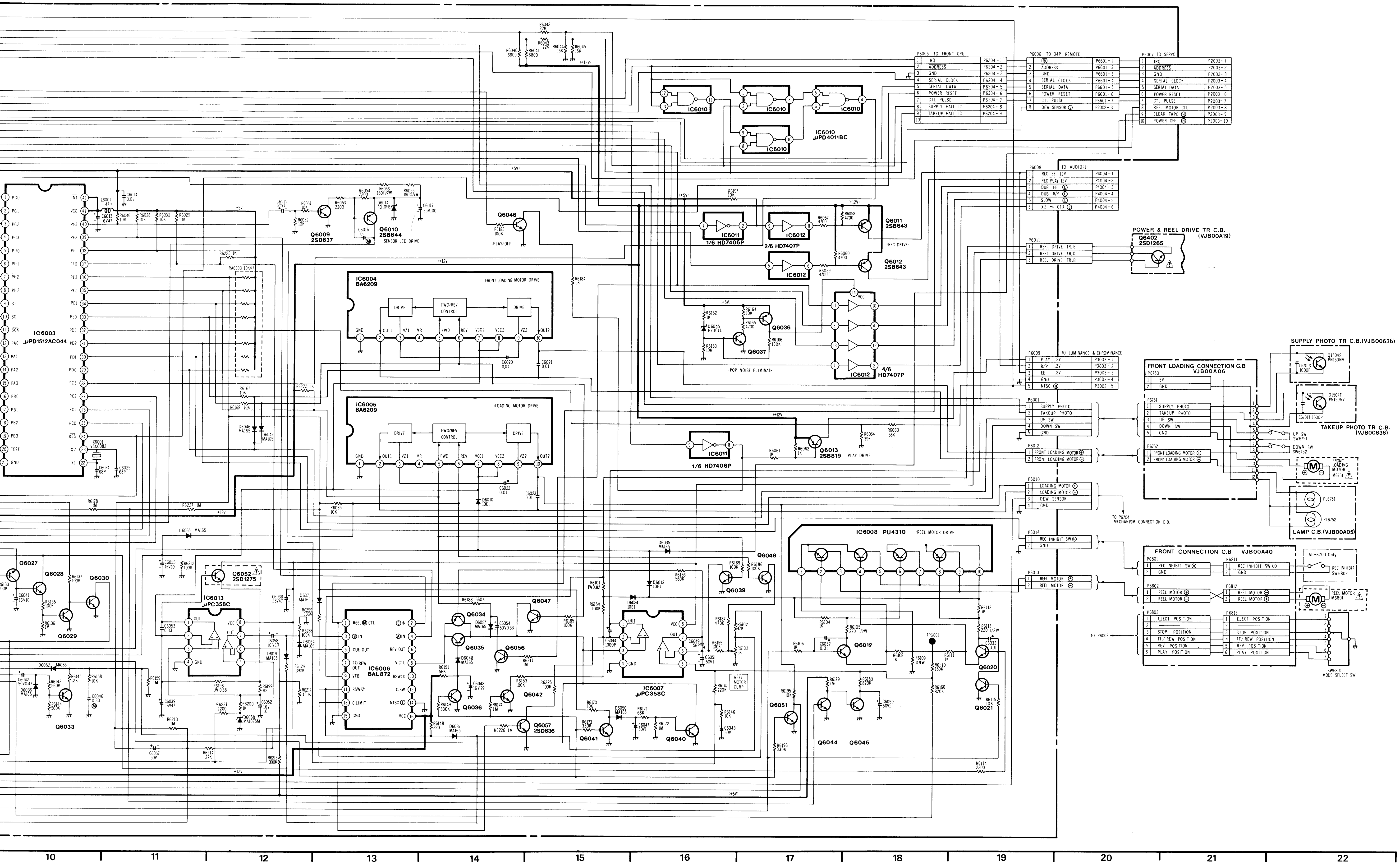
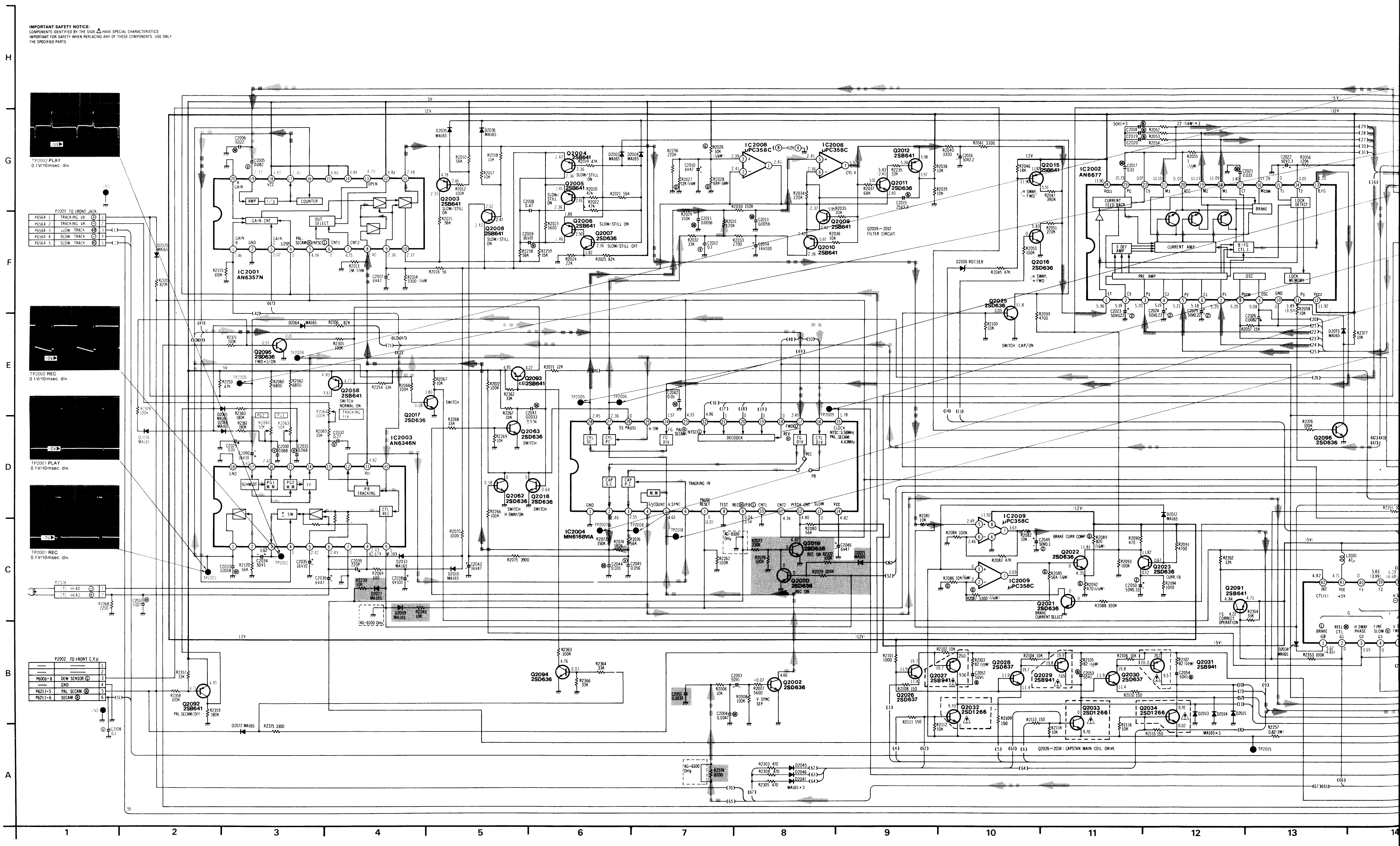
TS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS
T FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY
FIED PARTS.

NOTE: UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636 (NPN TYPE).

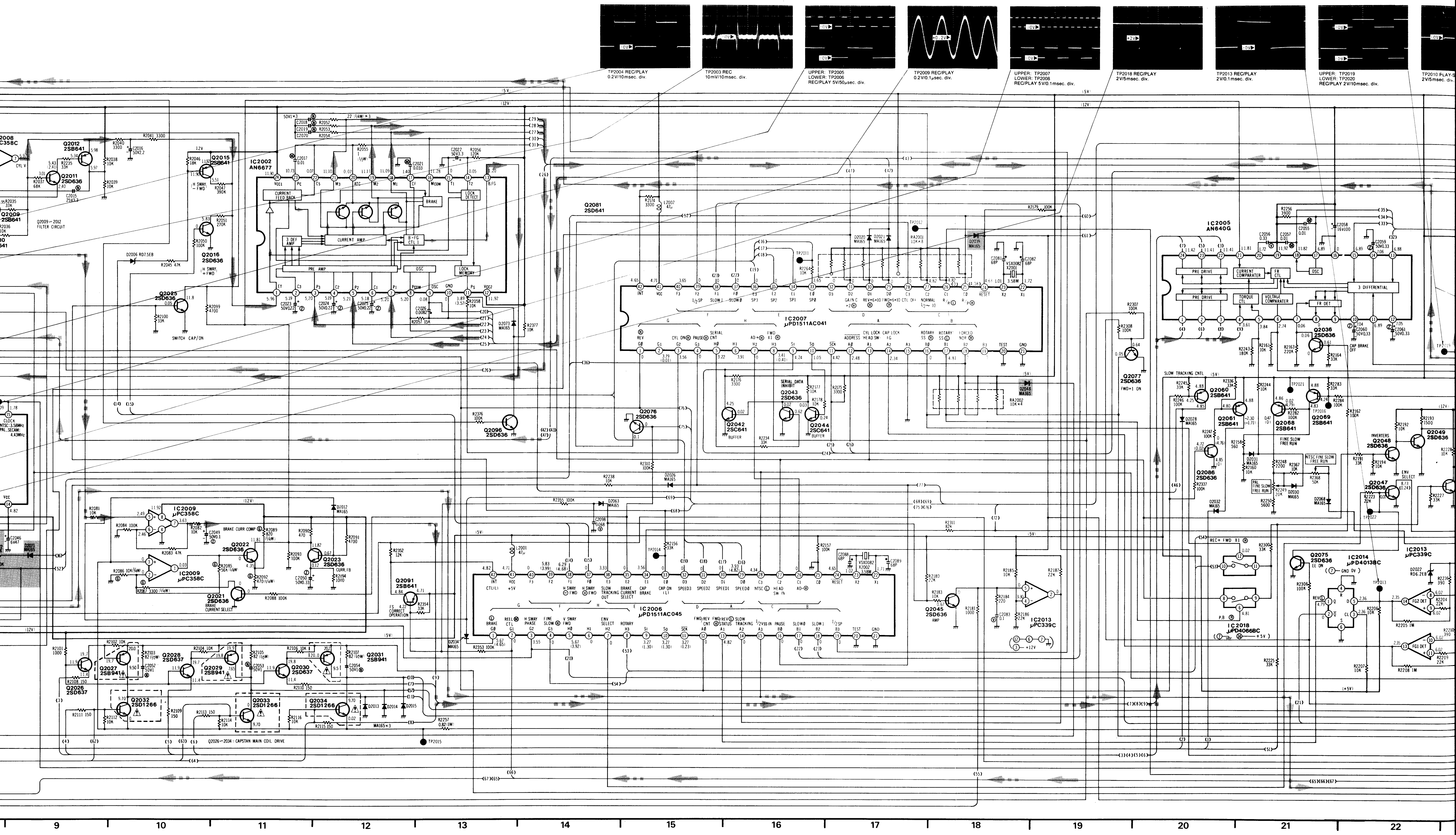

IC6003
μPD1512AC044
IC6010
μPD4011BC
IC6011
1/6 HD7406P
IC6012
2/6 HD7407P
4/6 HD7407P
IC6004
BA6209
FRONT LOADING MOTOR DRIVE
IC6005
BA6209
LOADING MOTOR DRIVE
IC6006
BAL872
IC6007
μPC358C
IC6008 PU4310 REEL MOTOR DRIVE
IC6013
μPC358C
Q6009 2SD637
Q6010 2SB644
SENSOR LED DRIVE
Q6046
PLAY/OFF
Q6011 2SB643
Q6012 2SB643
REC DRIVE
Q6013 2SB819
PLAY DRIVE
Q6036
Q6037
POP NOISE ELIMINATE
Q6052 2SD1275
Q6057 2SD636
Q6027
Q6028
Q6029
Q6030
Q6033
Q6034
Q6035
Q6056
Q6047
Q6042
Q6041
Q6040
Q6039
Q6048
Q6019
Q6020
Q6021
Q6051
Q6044
Q6045
P6005 TO FRONT CPU
IRQ
ADDRESS
GND
SERIAL CLOCK
SERIAL DATA
POWER RESET
CTL PULSE
SUPPLY HALL IC
TAKEUP HALL IC
P6006 TO 34P REMOTE
DEW SENSOR
P6007 TO SERVO
REEL MOTOR CTL
CLEAR TAPE
POWER OFF
P6008 TO AUDIO 1
REC EE 12V
REC PLAY 12V
DUB EE
DUB R/P
SLOW
X2 ~ X10
POWER & REEL DRIVE TR C.B.
(VJB00A19)
Q6402
2SD1265
P6011
REEL DRIVE TR,E
REEL DRIVE TR,C
REEL DRIVE TR,B
P6009 TO LUMINANCE & CHROMINANCE
PLAY 12V
R/P 12V
EE 12V
GND
NTSC
P6001
SUPPLY PHOTO
TAKEUP PHOTO
UP SW
DOWN SW
P6012
FRONT LOADING MOTOR ⊕
FRONT LOADING MOTOR ⊖
P6010
LOADING MOTOR ⊕
LOADING MOTOR ⊖
DEW SENSOR
TO P6704
MECHANISM CONNECTION C.B.
P6014
REC INHIBIT SW
P6013
REEL MOTOR ⊕
REEL MOTOR ⊖
FRONT LOADING CONNECTION C.B
VJB00A06
SUPPLY PHOTO TR C.B.(VJB00636)
Q1504S PN150NV
Q1504T PN150NV
TAKEUP PHOTO TR C.B.
(VJB00636)
UP SW SW6751
DOWN SW SW6752
FRONT LOADING MOTOR M6751
PL6751
PL6752
LAMP C.B.(VJB00A05)
FRONT CONNECTION C.B VJB00A40
AG-6200 Only
SW6802
REEL MOTOR M6801
P6803
P6813
EJECT POSITION
STOP POSITION
FF/REW POSITION
REV POSITION
PLAY POSITION
TO P6003
SW6821
MODE SELECT SW
10
11
12
13
14
15
16
17
18
19
20
21
22

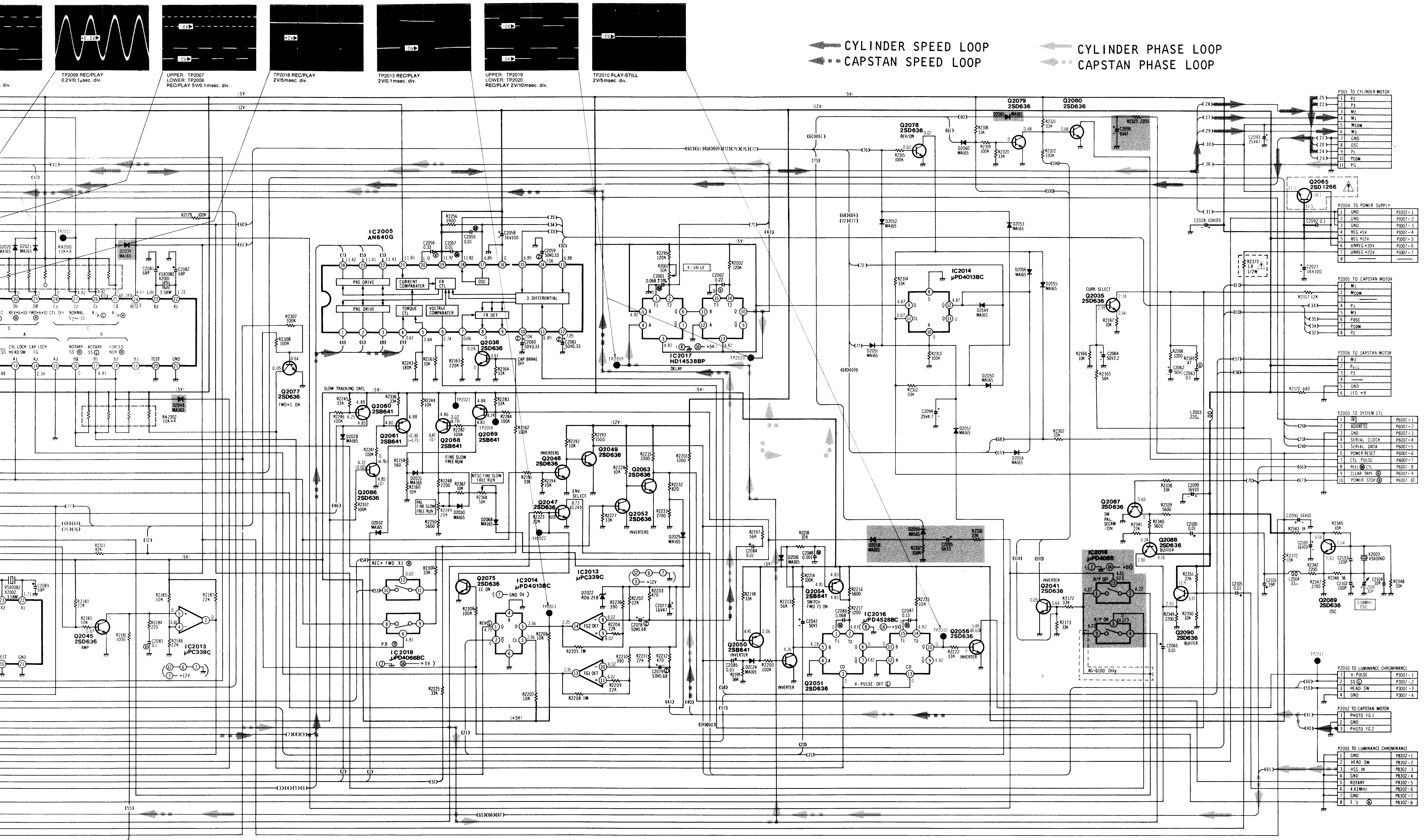
# SERVO SCHEMATIC DIAGRAM

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.



H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
TP2002 PLAY 0.1V/10msec. div.
TP2002 REC 0.1V/10msec. div.
TP2001 PLAY 0.1V/10msec. div.
TP2001 REC 0.1V/10msec. div.
P2009 TO FRONT JACK
TRACKING VR
SLOW TRACK
P2002 TO FRONT C.P.U
DEW SENSOR
GND
PAL SECAM
SECAM
CTL HEAD
IC2001 AN6357N
IC2003 AN6346N
IC2004 MN6168VIA
IC2008 μPC358C
IC2009 μPC358C
IC2002 AN6677
Q2003 2SB641 SLOW/STILL ON
Q2004 2SB641 SLOW/STILL ON
Q2005 2SB641
Q2006 2SB641 SLOW/STILL ON
Q2007 2SD636 SLOW/STILL OFF
Q2008 2SB641 SLOW/STILL ON
Q2009 2SB641
Q2010 2SB641
Q2011 2SD636
Q2012 2SB641
Q2009~2012 FILTER CIRCUIT
Q2015 2SB641 H SWAY FWD
Q2016 2SD636 H SWAY +FWD
Q2025 2SD636 SWITCH CAP/ON
Q2095 2SD636 FWD×1/ON
Q2058 2SB641 SWITCH NORMAL ON
Q2017 2SD636 SWITCH
Q2093 2SB641
Q2063 2SD636 SWITCH
Q2062 2SD636 SWITCH H SWAY/ON
Q2018 2SD636 SWITCH
Q2019 2SD636 REC ON
Q2020 2SD636 REC ON
Q2096 2SD636
Q2022 2SD636
Q2023 2SD636
Q2021 2SD636 BRAKE CURRENT SELECT
Q2091 2SB641 FS CORRECT OPERATION
Q2094 2SD636
Q2002 2SD636 V SYNC SEP
Q2092 2SB641 PAL SECAM/OFF
Q2026 2SD637
Q2027 2SB941
Q2028 2SD637
Q2029 2SB941
Q2030 2SD637
Q2031 2SB941
Q2032 2SD1266
Q2033 2SD1266
Q2034 2SD1266
Q2026~2034: CAPSTAN MAIN COIL DRIVE
AG-6100 Only
BRAKE CURR COMP
TRACKING IN
PB
REC
CLOCK NTSC: 3.58MHz PAL, SECAM: 4.43MHz
DECODER
CURRENT FEED BACK
CURRENT AMP
PRE AMP
OSC
LOCK DETECT
LOCK MEMORY
BRAKE
3 DEF AMP
B-FG CTL 1
TP2001
TP2002
TP2003
TP2004
TP2005
TP2006
TP2007
TP2008
TP2009
TP2015
MA165×3
5V
12V


TP2004 REC/PLAY
0.2V/10msec. div.
TP2003 REC
10mV/10msec. div.
UPPER: TP2005
LOWER: TP2006
REC/PLAY 5V/50μsec. div.
TP2009 REC/PLAY
0.2V/0.1μsec. div.
UPPER: TP2007
LOWER: TP2008
REC/PLAY 5V/0.1msec. div.
TP2018 REC/PLAY
2V/5msec. div.
TP2013 REC/PLAY
2V/0.1msec. div.
UPPER: TP2019
LOWER: TP2020
REC/PLAY 2V/10msec. div.
TP2010 PLAY-S
2V/5msec. div.
IC2002
AN6677
CURRENT FEED BACK
3 DEF AMP
CURRENT AMP
PRE AMP
BRAKE
LOCK DETECT
B-FG CTL 1
OSC
LOCK MEMORY
Q2012 2SB641
Q2011 2SD636
Q2015 2SB641
Q2016 2SD636
Q2025 2SD636
Q2009 2SB641
Q2009~2012 FILTER CIRCUIT
SWITCH CAP/ON
CYL V
H SWAY - FWD
H SWAY + FWD
Q2081 2SD641
IC2007
μPD1511AC041
Q2076 2SD636
Q2096 2SD636
Q2042 2SC641 BUFFER
Q2043 2SD636 SERIAL DATA INHIBIT
Q2044 2SC641 BUFFER
Q2077 2SD636 FWD×1 ON
Q2048 MA165
IC2005
AN640G
PRE DRIVE
CURRENT COMPARATER
FR CTL
3 DIFFERENTIAL
TORQUE CTL
VOLTAGE COMPARATER
FR DET
Q2036 2SD636
CAP BRAKE OFF
SLOW TRACKING CNTL
Q2060 2SB641
Q2061 2SB641
Q2068 2SB641
Q2069 2SB641
Q2086 2SD636
FINE SLOW FREE RUN
NTSC FINE SLOW FREE RUN
PAL FINE SLOW FREE RUN
INVERTERS Q2048 2SD636
Q2049 2SD636
Q2047 2SD636
ENV SELECT
CLOCK NTSC:3.58MHz PAL, SECAM: 4.43MHz
IC2009 μPC358C
BRAKE CURR COMP
Q2022 2SD636
Q2023 2SD636 CURR.FB
Q2021 2SD636 BRAKE CURRENT SELECT
IC2006
μPD1511AC045
Q2091 2SB641
FS CORRECT OPERATION
Q2045 2SD636 AMP
IC2013 μPC339C
REC+ FWD X1
IC2018 μPD4066BC
Q2075 2SD636 EE ON
IC2014 μPD4013BC
IC2013 μPC339C
FG2 DET
FG1 DET
Q2027 2SB941
Q2028 2SD637
Q2029 2SB941
Q2030 2SD637
Q2031 2SB941
Q2026 2SD637
Q2032 2SD1266
Q2033 2SD1266
Q2034 2SD1266
MA165×3
Q2026~2034 : CAPSTAN MAIN COIL DRIVE
TP2015
9
10
11
12
13
14
15
16
17
18
19
20
21
22


TP2009 REC/PLAY
0.2V/0.1μsec. div.
UPPER: TP2007
LOWER: TP2008
REC/PLAY 5V/0.1msec. div.
TP2018 REC/PLAY
2V/5msec. div.
TP2013 REC/PLAY
2V/0.1msec. div.
UPPER: TP2019
LOWER: TP2020
REC/PLAY 2V/10msec. div.
TP2010 PLAY-STILL
2V/5msec. div.
CYLINDER SPEED LOOP
CAPSTAN SPEED LOOP
CYLINDER PHASE LOOP
CAPSTAN PHASE LOOP
IC2005 AN640G
PRE DRIVE
CURRENT COMPARATER
FR CTL
OSC
3 DIFFERENTIAL
TORQUE CTL
VOLTAGE COMPARATER
FR DET
CAP BRAKE OFF
Q2036 2SD636
Q2077 2SD636
FWD×1 ON
SLOW TRACKING CNTL
Q2060 2SB641
Q2061 2SB641
Q2068 2SB641
Q2069 2SB641
Q2086 2SD636
FINE SLOW FREE RUN
NTSC FINE SLOW FREE RUN
PAL FINE SLOW FREE RUN
INVERTERS
Q2048 2SD636
Q2049 2SD636
Q2053 2SD636
Q2047 2SD636
Q2052 2SD636
ENV SELECT
IC2017 HD14538BP
DELAY
X-VALUE
IC2014 μPD4013BC
Q2078 2SD636
REV/ON
Q2079 2SD636
Q2080 2SD636
Q2065 2SD1266
CURR. SELECT
Q2035 2SD636
Q2087 2SD636
SW PAL. SECAM /ON
Q2088 2SD636
BUFFER
Q2089 2SD636
OSC
3.58MHz OSC
Q2090 2SD636
BUFFER
IC2015 μPD4066
R/P OFF
R/P ON
AG-6100 Only
INVERTER
Q2041 2SD636
Q2045 2SD636
AMP
IC2013 μPC339C
REC+ FWD X1 Ⓗ
P.B
IC2018 μPD4066BC
Q2075 2SD636
EE ON
IC2014 μPD4013BC
FG2 DET
FG1 DET
Q2050 2SB641
INVERTER
Q2054 2SB641
SWITCH FWD FS ON
IC2016 μPD4528BC
Q2051 2SD636
V-PULSE OFF Ⓛ
Q2056 2SD636
INVERTER
TP2017
P001 TO CYLINDER MOTOR
1 P2
2 P3
3 M2
4 M1
5 MCOM
6 M3
7 GND
8 OSC
9 P1
10 PCOM
11 PG
P2004 TO POWER SUPPLY
1 GND P1007-1
2 GND P1007-2
3 GND P1007-3
4 REG +5V P1007-4
5 REG +12V P1007-5
6 UNREG +20V P1007-6
7 UNREG +20V P1007-7
8
P2005 TO CAPSTAN MOTOR
1 M1
2 MCOM
3
4 P1
5 M3
6 POSC
7 PCOM
8 P2
P2006 TO CAPSTAN MOTOR
1 M2
2 PVCC
3 P3
4
5 GND
6 LED +B
P2003 TO SYSTEM CTL
1 IRQ P6007-1
2 ADDRESS P6007-2
3 GND P6007-3
4 SERIAL CLOCK P6007-4
5 SERIAL DATA P6007-5
6 POWER RESET P6007-6
7 CTL PULSE P6007-7
8 REEL Ⓜ CTL P6007-8
9 CLEAR TAPE Ⓗ P6007-9
10 POWER STOP Ⓗ P6007-10
P2010 TO LUMINANCE,CHROMINANCE
1 V-PULSE P3007-1
2 SS Ⓛ P3007-2
3 HEAD SW P3007-3
4 GND P3007-4
P2012 TO CAPSTAN MOTOR
1 PHOTO FG1
2 GND
3 PHOTO FG2
P2001 TO LUMINANCE,CHROMINANCE
1 GND P8302-1
2 HEAD SW P8302-2
3 HSS IN P8302-3
4 GND P8302-4
5 ROTARY P8302-5
6 4.43MHz P8302-6
7 GND P8302-7
8 E/E Ⓗ P8302-8

The Shaded Parts are Used in AG-6200 Only.

**The DC voltages in this diagram are measured in PLAY and RECORD mode.**
**(The voltages indicated in brackets ( ) are measured in RECORD mode.)**

17
18
19
20
21
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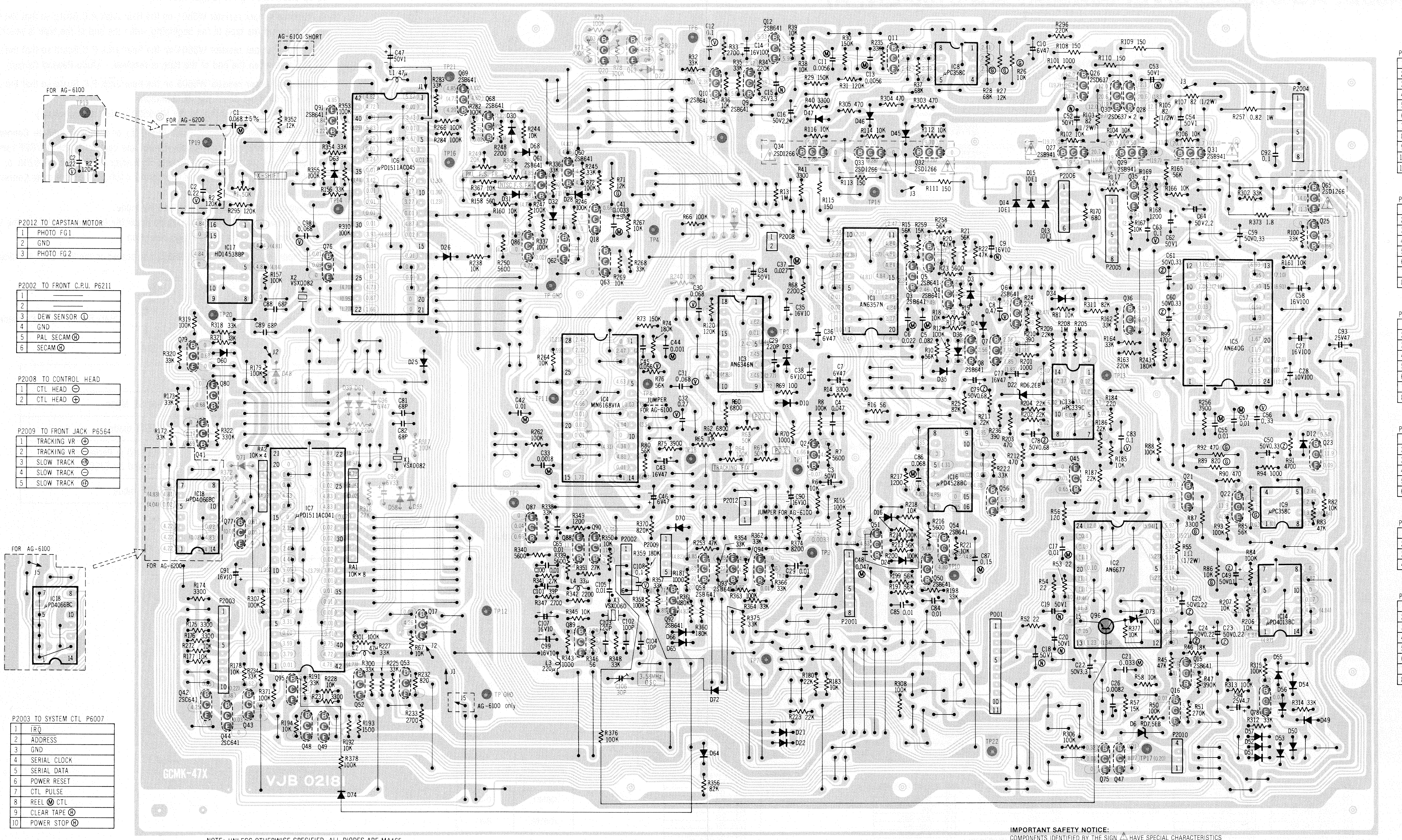
24
25
26
27
28
29
30

# SERVO C.B.A. (VEP02181A: AG-6200/VEP02181B: AG-6100)


FOR AG-6100
FOR AG-6200
AG-6100 SHORT
IC1 AN6357N
IC2 AN6677
IC3 AN6346N
IC4 MN6168VIA
IC5 AN640G
IC6 μPD1511AC045
IC7 μPD1511AC041
IC8 μPC358C
IC9 μPC358C
IC13 μPC339C
IC14 μPD4013BC
IC16 μPD4528BC
IC17 HD14538BP
IC18 μPD4066BC
JUMPER FOR AG-6100
TRACKING FIX
X1 VSX0082
X2 VSX0082
X3 VSX0060
3.58MHz OSC
AG-6100 only
GCMK-47X
VJB 02181
A
B
C
D
E
1
2
3
4
5
6
7
8
9

P2012 TO CAPSTAN MOTOR

| | |
|---|---|
| 1 | PHOTO FG1 |
| 2 | GND |
| 3 | PHOTO FG2 |

P2002 TO FRONT C.P.U. P6211

| | |
|---|---|
| 1 | ——— |
| 2 | ——— |
| 3 | DEW SENSOR Ⓛ |
| 4 | GND |
| 5 | PAL SECAM Ⓗ |
| 6 | SECAM Ⓗ |

P2008 TO CONTROL HEAD

| | |
|---|---|
| 1 | CTL HEAD ⊖ |
| 2 | CTL HEAD ⊕ |

P2009 TO FRONT JACK P6564

| | |
|---|---|
| 1 | TRACKING VR ⊕ |
| 2 | TRACKING VR ⊖ |
| 3 | SLOW TRACK (+R) |
| 4 | SLOW TRACK ⊖ |
| 5 | SLOW TRACK (+F) |

P2003 TO SYSTEM CTL P6007

| | |
|---|---|
| 1 | $\overline{\text{IRQ}}$ |
| 2 | $\overline{\text{ADDRESS}}$ |
| 3 | GND |
| 4 | SERIAL CLOCK |
| 5 | SERIAL DATA |
| 6 | POWER RESET |
| 7 | CTL PULSE |
| 8 | REEL Ⓜ CTL |
| 9 | CLEAR TAPE Ⓗ |
| 10 | POWER STOP Ⓗ |

P001 TO CYLINDER MOTOR

| | |
|---|---|
| 1 | P2 |
| 2 | P3 |
| 3 | M2 |
| 4 | M1 |
| 5 | MCOM |
| 6 | M3 |
| 7 | GND |
| 8 | OSC |
| 9 | P1 |
| 10 | PCOM |
| 11 | PG |

P2004 TO POWER SUPPLY P1007

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | REG + 5V |
| 5 | REG + 12V |
| 6 | UNREG + 20V |
| 7 | UNREG + 20V |
| 8 | ——— |

P2005 TO CAPSTAN MOTOR

| | |
|---|---|
| 1 | M1 |
| 2 | MCOM |
| 3 | ——— |
| 4 | P1 |
| 5 | M3 |
| 6 | POSC |
| 7 | PCOM |
| 8 | P2 |

P2006 TO CAPSTAN MOTOR

| | |
|---|---|
| 1 | M2 |
| 2 | PVCC |
| 3 | P3 |
| 4 | ——— |
| 5 | GND |
| 6 | LED + B |

P2010 TO LUMINANCE,CHROMINANCE

| | |
|---|---|
| 1 | V-PULSE |
| 2 | SS Ⓛ |
| 3 | HEAD SW |
| 4 | GND |

P2001 TO LUMINANCE,CHROMINANCE

| | |
|---|---|
| 1 | GND |
| 2 | HEAD SW |
| 3 | HSS IN |
| 4 | GND |
| 5 | ROTARY |
| 6 | 4.43MHz |
| 7 | GND |
| 8 | E/E Ⓗ |

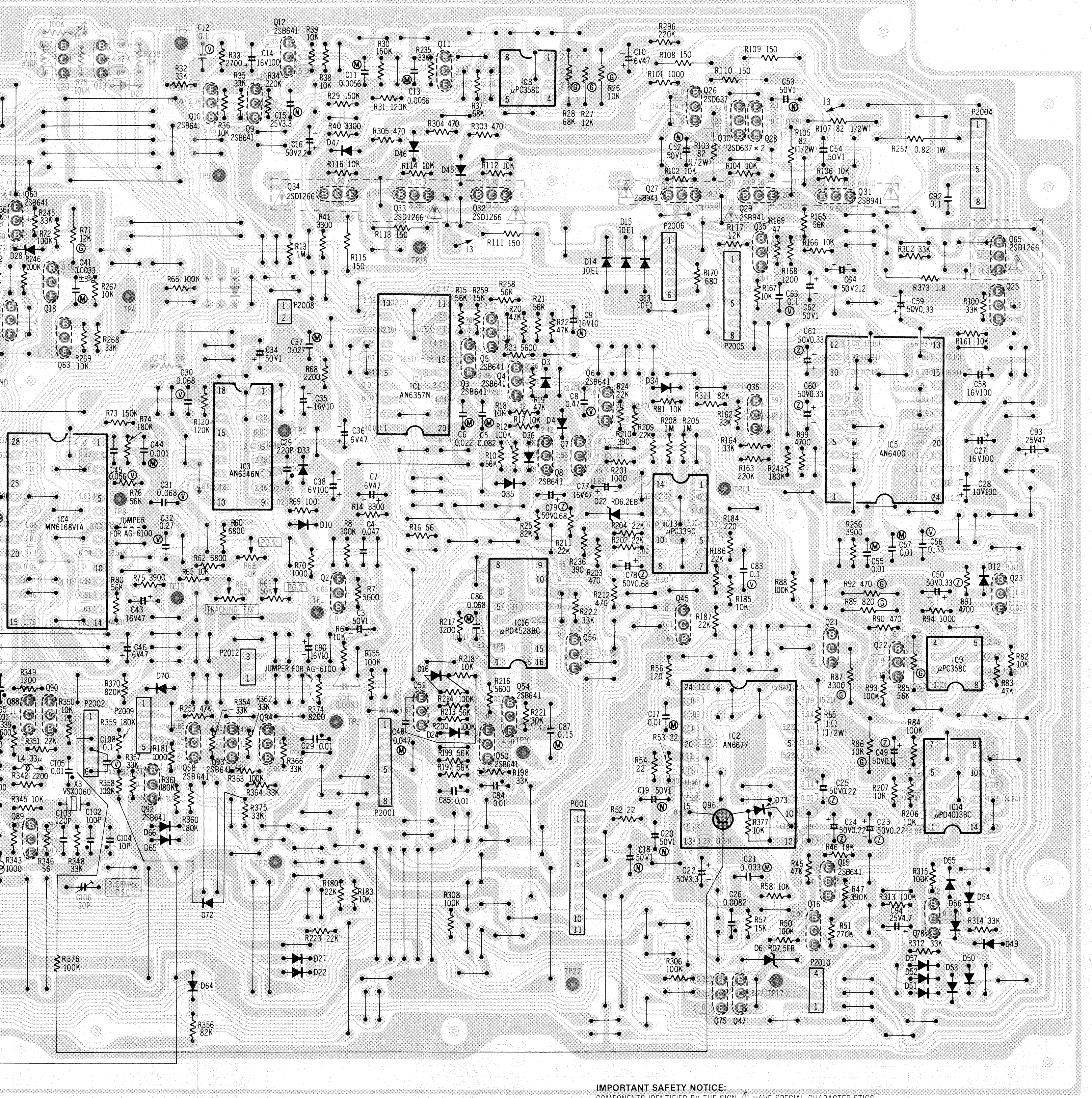
NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636

The Blue Coloured Parts are Used in AG-6200 Only.

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

**The DC voltages in this diagram are measured in PLAY and REC**
**(The voltages indicated in brackets ( ) are measured in REC**

# AG-6100)



IC1 AN6357N
IC2 AN6677
IC3 AN6346N
IC4 MN6168VIA
IC5 AN640G
IC8 µPC358C
IC9 µPC358C
IC13 µPC339C
IC14 µPD4013BC
IC16 µPD4528BC
P001
P2001
P2004
P2005
P2006
P2008
P2009
P2010
P2012
JUMPER FOR AG-6100
TRACKING FIX
3.58MHz OSC
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP13
TP15
TP17
TP22

P001 TO CYLINDER MOTOR

| | |
|---|---|
| 1 | P2 |
| 2 | P3 |
| 3 | M2 |
| 4 | M1 |
| 5 | MCOM |
| 6 | M3 |
| 7 | GND |
| 8 | OSC |
| 9 | P1 |
| 10 | PCOM |
| 11 | PG |

P2004 TO POWER SUPPLY P1007

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | GND |
| 4 | REG + 5V |
| 5 | REG + 12V |
| 6 | UNREG + 20V |
| 7 | UNREG + 20V |
| 8 | ——— |

P2005 TO CAPSTAN MOTOR

| | |
|---|---|
| 1 | M1 |
| 2 | MCOM |
| 3 | ——— |
| 4 | P1 |
| 5 | M3 |
| 6 | POSC |
| 7 | PCOM |
| 8 | P2 |

P2006 TO CAPSTAN MOTOR

| | |
|---|---|
| 1 | M2 |
| 2 | PVCC |
| 3 | P3 |
| 4 | ——— |
| 5 | GND |
| 6 | LED + B |

P2010 TO LUMINANCE, CHROMINANCE P3007

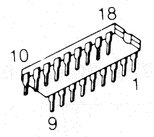
| | |
|---|---|
| 1 | V - PULSE |
| 2 | SS Ⓛ |
| 3 | HEAD SW |
| 4 | GND |

P2001 TO LUMINANCE, CHROMINANCE P8302

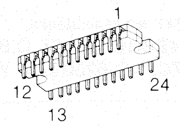
| | |
|---|---|
| 1 | GND |
| 2 | HEAD SW |
| 3 | HSS IN |
| 4 | GND |
| 5 | ROTARY |
| 6 | 4.43MHz |
| 7 | GND |
| 8 | E/E Ⓗ |

| Servo C.B.A. (VEP02181A,B) | | | |
|---|---|---|---|
| Q2002 | C-6 | Q2053 | B-3 |
| Q2003 | D-6 | Q2054 | B-6 |
| Q2004 | D-6 | Q2056 | C-7 |
| Q2005 | D-6 | Q2058 | B-5 |
| Q2006 | D-7 | Q2060 | E-4 |
| Q2007 | D-7 | Q2061 | E-4 |
| Q2008 | D-6 | Q2062 | D-4 |
| Q2009 | E-5 | Q2063 | D-4 |
| Q2010 | E-5 | Q2065 | E-8 |
| Q2011 | E-6 | Q2068 | E-4 |
| Q2012 | E-5 | Q6069 | E-3 |
| Q2015 | B-8 | Q6075 | A-7 |
| Q2016 | B-8 | Q2076 | D-3 |
| Q2017 | B-3 | Q2077 | C-2 |
| Q2018 | D-4 | Q2078 | B-8 |
| Q2019 | E-4 | Q2079 | D-2 |
| Q2020 | E-4 | Q2080 | C-2 |
| Q2021 | C-8 | Q2086 | D-4 |
| Q2022 | C-8 | Q2087 | C-4 |
| Q2023 | C-8 | Q2088 | B-4 |
| Q2025 | D-8 | Q2089 | B-4 |
| Q2026 | E-7 | Q2090 | B-4 |
| Q2027 | E-7 | Q2091 | E-3 |
| Q2028 | E-7 | Q2092 | B-5 |
| Q2029 | E-7 | Q2093 | B-5 |
| Q2030 | E-7 | Q2094 | B-5 |
| Q2031 | E-8 | Q2095 | B-2 |
| Q2032 | E-6 | Q2096 | B-7 |
| Q2033 | E-6 | | |
| Q2034 | E-5 | IC2001 | D-6 |
| Q2035 | E-7 | IC2002 | B-7 |
| Q2036 | D-7 | IC2003 | D-5 |
| Q2041 | C-2 | IC2004 | C-4 |
| Q2042 | A-2 | IC2005 | D-8 |
| Q2043 | A-2 | IC2006 | E-3 |
| Q2044 | A-2 | IC2007 | C-3 |
| Q2045 | C-7 | IC2008 | E-6 |
| Q2047 | A-7 | IC2009 | C-8 |
| Q2048 | A-2 | IC2013 | C-7 |
| Q2049 | A-3 | IC2014 | B-8 |
| Q2050 | B-6 | IC2016 | C-6 |
| Q2051 | B-6 | IC2017 | D-2 |
| Q2052 | B-3 | IC2018 | C-2 |

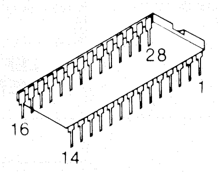
## Servo C.B.A. ICs & Transistors Information



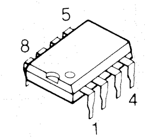
AN6346N



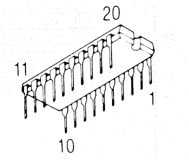
AN640G
AN6677



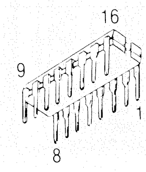
MN6168VIA



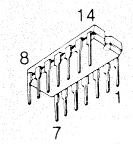
µPC358C



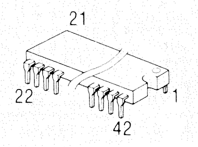
AN6357N



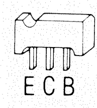
HD14538BP
µPD4528BC



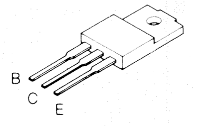
µPC339C
µPD4013BC
µPD4066BC



µPD1511AC



2SA886V
2SB641
2SC641
2SD636
2SD637
2SD638



2SB941
2SD1266

The Blue Coloured Parts are Used in AG-6200 Only.

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**The DC voltages in this diagram are measured in PLAY and RECORD mode. (The voltages indicated in brackets (   ) are measured in RECORD mode.)**

5 6 7 8 9

# 34P CONTROL C.B.A. (VEP06219A), REAR JACK C.B.A. (VEP00981D: AG-6200/VEP00981E: AG-6100), FRONT JACK C.B.A. (VEP00978B: AG-6200/VEP00978C: AG-6100) & LEFT CONTROL PANEL C.B.A. (VEP00977C: AG-6200-E, B/VEP00977B: AG-6200-EN, A/VEP00A39B: AG-6100-E, B/VEP00A39A: AG-6100-EN, A)

P6545 TO AUDIO 2 P4006

| | |
|---|---|
| 1 | CH1 METER OUT |
| 2 | GND |
| 3 | ——— |
| 4 | GND |
| 5 | CH2 METER OUT |

P6547 TO AUDIO 2 P4011

| | |
|---|---|
| 1 | NR OUT Ⓗ |
| 2 | LIMITER ON Ⓛ |
| 3 | ——— |
| 4 | CH1 Ⓛ |
| 5 | CH2 Ⓛ |

P6548－1 TO FRONT JACK P6565

| | |
|---|---|
| 1 | CH2 LINE IN |
| 2 | GND |
| 3 | CH2 AMP OUT |
| 4 | GND |

P6548－2 TO FRONT JACK P6565

| | |
|---|---|
| 1 | CH1 LINE IN |
| 2 | GND |
| 3 | CH1 AMP OUT |
| 4 | GND |
| 5 | +12V |

P6543－1 TO FRONT CPU P6512

| | |
|---|---|
| 1 | VIDEO IN |
| 2 | GND |
| 3 | CH1－N |
| 4 | CH2－N |
| 5 | +12V |

P6543－2 TO FRONT CPU P6212

| | |
|---|---|
| 1 | +5V |
| 2 | GND |
| 3 | NR OUT－P |
| 4 | ——— |
| 5 | +5V |
| 6 | ——— |

P6544 TO LUMINANCE & CHROMINANCE P3006

| | |
|---|---|
| 1 | VIDEO IN |
| 2 | GND |
| 3 | ——— |

P6546 TO AUDIO 1 P4001

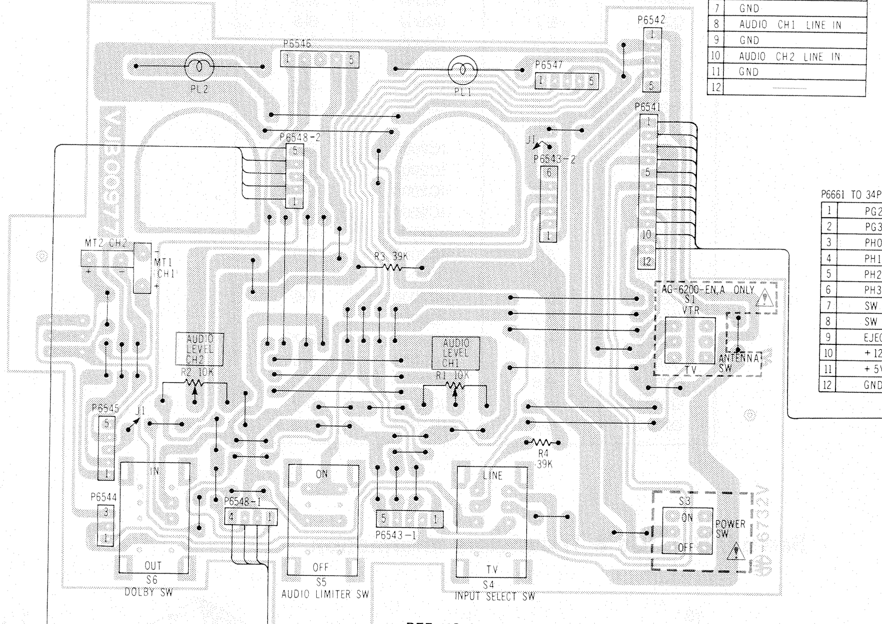
| | |
|---|---|
| 1 | CH1 LINE IN |
| 2 | GND |
| 3 | ——— |
| 4 | GND |
| 5 | CH2 LINE IN |

P6542 TO POWER SUPPLY P1002

| | |
|---|---|
| 1 | REG +12V |
| 2 | REG +5V |
| 3 | GND |
| 4 | REG +5V |
| 5 | POWER SW |

P6541 TO REAR JACK PANEL P6663

| | |
|---|---|
| 1 | VTR +12V |
| 2 | VIDEO 8P IN |
| 3 | GND |
| 4 | VIDEO LINE IN |
| 5 | GND |
| 6 | AUDIO 8P IN |
| 7 | GND |
| 8 | AUDIO CH1 LINE IN |
| 9 | GND |
| 10 | AUDIO CH2 LINE IN |
| 11 | GND |
| 12 | ——— |


VJB00977
P6546
P6547
P6542
P6541
PL2
PL1
P6548-2
P6543-2
J1
MT2 CH2
MT1 CH1
R3 39K
AUDIO LEVEL CH2
AUDIO LEVEL CH1
R2 10K
R1 10K
AG-6200-EN,A ONLY
S1
VTR
TV
ANTENNA SW
P6545
R4 39K
P6544
P6548-1
P6543-1
ON
OUT
LINE
OFF
TV
S6
DOLBY SW
S5
AUDIO LIMITER SW
S4
INPUT SELECT SW
S3
POWER SW
ON
OFF
P6661

REF. NO. 6540 SERIES.

LEFT CONTROL PANEL C.B.A.
(VEP00977C: AG-6200-E/B, VEP00977B: AG-6200-EN/A)

P6661 TO 34P CONTROL P6602

| | |
|---|---|
| 1 | PG2 |
| 2 | PG3 |
| 3 | PHO |
| 4 | PH1 |
| 5 | PH2 |
| 6 | PH3 |
| 7 | SW SCAN A1 IN |
| 8 | SW SCAN C2 IN |
| 9 | EJECT SW |
| 10 | +12V |
| 11 | +5V |
| 12 | GND |

P6668 TO LUMINANCE & CHROMINANCE P3004

| | |
|---|---|
| 1 | VIDEO OUT LINE |
| 2 | GND |
| 3 | VIDEO OUT 8P |
| 4 | GND |
| 5 | VIDEO OUT RF |
| 6 | GND |
| 7 | ——— |
| 8 | ——— |

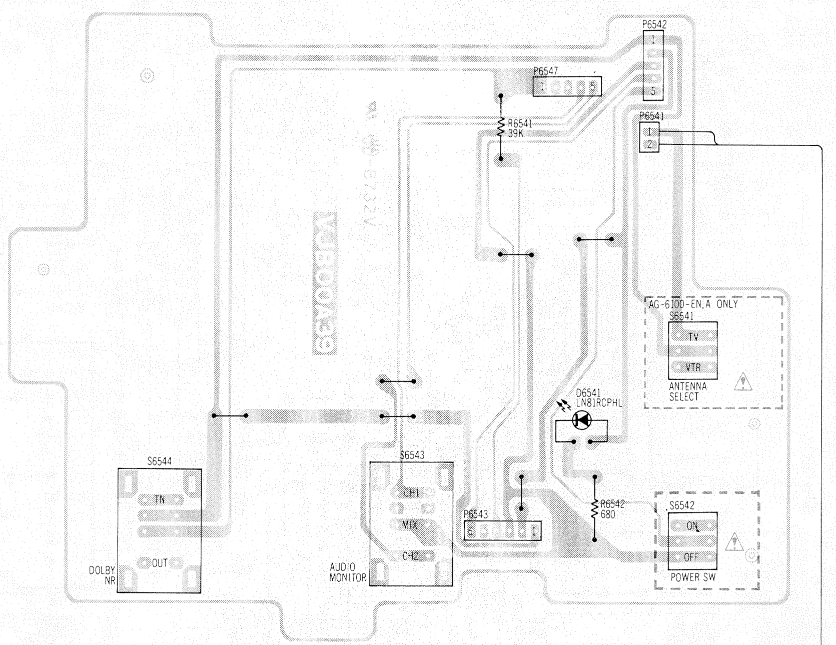
FOR AG-6100
P6663 TO LEFT CONTROL PANEL P6541

| | |
|---|---|
| 1 | VTR+12V |
| 2 | GND |

FOR AG-6200
P6663 TO LEFT CONTROL PANEL P6541

| | |
|---|---|
| 1 | VTR+12V |
| 2 | VIDEO 8P |
| 3 | GND |
| 4 | VIDEO LINE IN |
| 5 | GND |
| 6 | AUDIO 8P |
| 7 | GND |
| 8 | AUDIO CH1 LINE IN |
| 9 | GND |
| 10 | AUDIO CH2 LINE IN |
| 11 | GND |
| 12 | ——— |

LEFT CONTROL PANEL C.B.A.
(VEP00A39B: AG-6100-E/B, VEP00A39A: AG-6100-EN/A)


P6542
P6547
P6541
R6541 39K
VJB00A39
AG-6100-EN,A ONLY
S6541
TV
VTR
ANTENNA SELECT
D6541 LN81RCPHL
S6544
TN
OUT
DOLBY NR
S6543
CH1
MIX
CH2
AUDIO MONITOR
P6543
R6542 680
S6542
ON
OFF
POWER SW

P6542 TO POWER SUPPLY P1002

| | |
|---|---|
| 1 | REG+12V |
| 2 | REG+5V |
| 3 | GND |
| 4 | REG+5V |
| 5 | POWER SW |

P6541 TO REAR JACK P6663

| | |
|---|---|
| 1 | VTR+12V |
| 2 | GND |

P6547 TO AUDIO(2) P4011

| | |
|---|---|
| 1 | NR OUTⒽ |
| 2 | ——— |
| 3 | ——— |
| 4 | CH1Ⓛ |
| 5 | CH2Ⓛ |

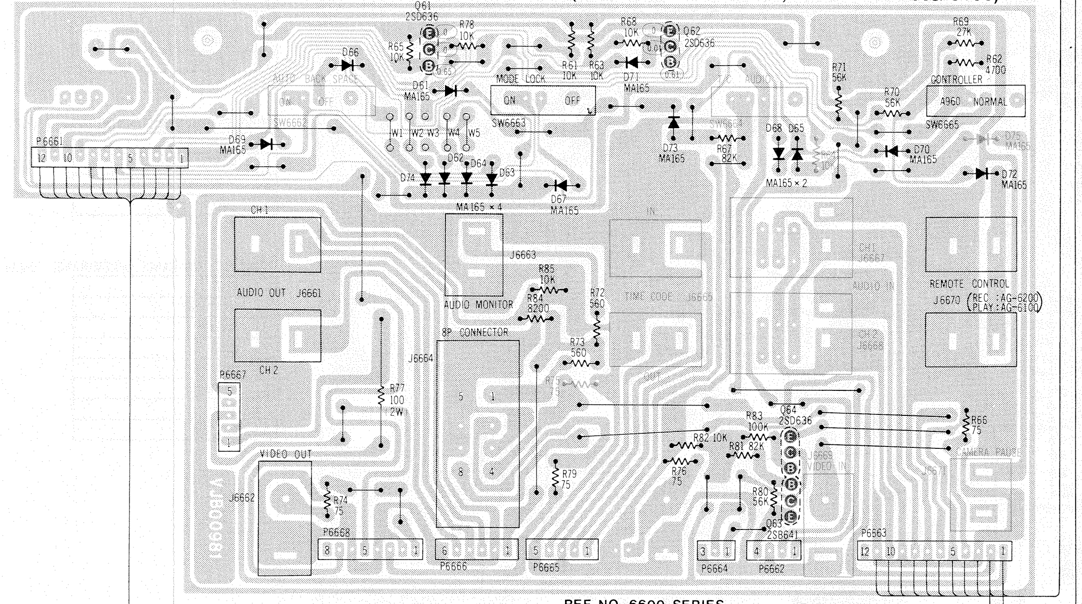
P6543 TO FRONT CPU P6212

| | |
|---|---|
| 1 | +12V |
| 2 | +5V |
| 3 | GND |
| 4 | NR OUTⒽ |
| 5 | ——— |
| 6 | +5V |

P6601 34P CONNECTOR

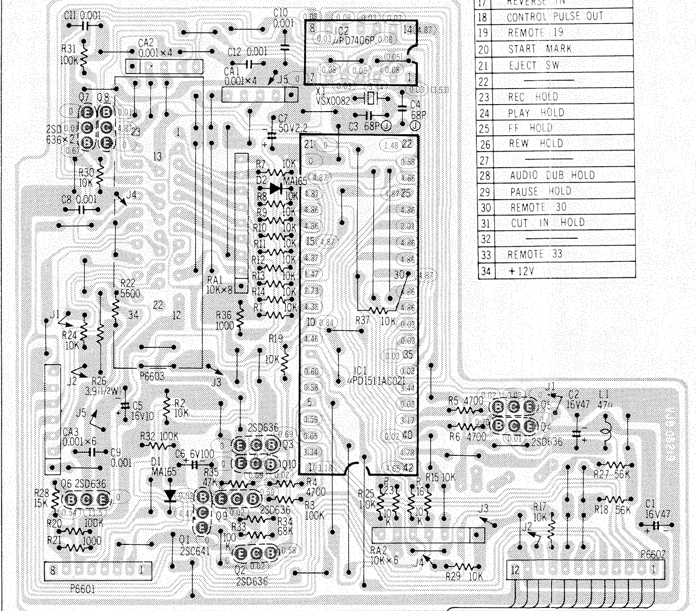
| | |
|---|---|
| 1 | REC SW |
| 2 | PLAY SW |
| 3 | FF SW |
| 4 | REW SW |
| 5 | STOP SW |
| 6 | AUDIO DUB SW |
| 7 | PAUSE SW |
| 8 | CASSETTE IN |
| 9 | CUT IN SW |
| 10 | FF REW SLOW DOWN |
| 11 | ——— |
| 12 | GND |
| 13 | STEP SW |
| 14 | REVERSE COUNT |
| 15 | ——— |
| 16 | ——— |
| 17 | REVERSE IN |
| 18 | CONTROL PULSE OUT |
| 19 | REMOTE 19 |
| 20 | START MARK |
| 21 | EJECT SW |
| 22 | ——— |
| 23 | REC HOLD |
| 24 | PLAY HOLD |
| 25 | FF HOLD |
| 26 | REW HOLD |
| 27 | ——— |
| 28 | AUDIO DUB HOLD |
| 29 | PAUSE HOLD |
| 30 | REMOTE 30 |
| 31 | CUT IN HOLD |
| 32 | ——— |
| 33 | REMOTE 33 |
| 34 | +12V |

REAR JACK C.B.A. (VEP00981D: AG-6200, VEP00981E: AG-6100)


Q61 2SD636
R78 10K
R65 10K
D66
D65 MA165
Q62 2SD636
R68
R61 10K
R63 10K
D71 MA165
MODE LOCK
ON
OFF
SW6663
R71 56K
R69 27K
R62 4700
CONTROLLER
4960 NORMAL
SW6665
R70 56K
D69 MA165
W1 W2 W3 W4 W5
D62
D64
D63
D74
MA165×4
D73 MA165
R67 82K
D68 D65
MA165×2
D70 MA165
D72 MA165
D67 MA165
P6661
CH1
AUDIO OUT J6661
CH2
P6667
J6663
R85 10K
R84 8200
AUDIO MONITOR
8P CONNECTOR
J6664
R72 560
R73 560
R77 100 2W
TIME CODE J6665
REMOTE CONTROL J6670
VIDEO OUT
J6662
R74
P6668
R79 75
R83 100K
R82 10K
R81 82K
R76 75
Q64 2SD636
R80 56K
Q63 2SB641
R66 75
P6666
P6665
P6664
P6662
P6663
VJB00981

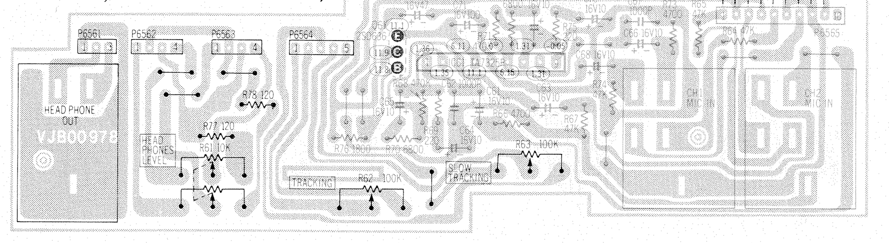
REF. NO. 6600 SERIES.

34P CONTROL C.B.A. (VEP06219A1)


C11 0.001
C10 0.001
R31 100K
CA2 0.001×4
C12 0.001
IC2 μPD7406C
CA1 0.001×4
C7 50V2.2
C3 68P
C4 68P
X1 CSA800T
Q8
Q5
2SD636×3
C8 0.001
RA1 10K×8
R22 6800
R36 1000
R37 10K
R19 10K
IC1 μPD1511AC021
R24 100K
R26 39/10V
C5 16V10
R2 10K
R32 10K
D1 MA165
CA3 0.001×6
Q6 2SD636×3
C6 0.001
R28 15K
R33 68K
R34 100K
R20 100K
R21 1000
Q1 2SC641
Q2 2SD636
R3 100K
RA2 10K×7
R5 4700
R6 4700
J1
C2
L1
R27 56K
R17 10K
R18 56K
C1 16V47
R29 10K
J2
J3
J4
P6601
P6602

REF. NO. 6600 SERIES.

FRONT JACK C.B.A.
(VEP00978A: AG-6200, VEP00978B: AG-6100)


P6561
P6562
P6563
P6564
P6565
HEAD PHONE OUT
VJB00978
HEAD PHONES LEVEL
R61 10K
R75 120
TRACKING
R62 100K
SLOW TRACKING
R63 100K

P6561 TO AUDIO 2 P4009

| | |
|---|---|
| 1 | GND |
| 2 | CH1 H.P OUT |
| 3 | CH2 H.P OUT |

P6562 TO AUDIO (2) P4007

| | |
|---|---|
| 1 | CH1 P.B LEVEL |
| 2 | GND |
| 3 | GND |
| 4 | CH2 P.B LEVEL |

P6563 TO AUDIO (2) P4008

| | |
|---|---|
| 1 | CH1 H.P LEVEL |
| 2 | GND |
| 3 | GND |
| 4 | CH2 H.P LEVEL |

P6564 TO SERVO P2009

| | |
|---|---|
| 1 | TRACKING VR ⊕ |
| 2 | TRACKING VR ⊖ |
| 3 | SLOW TRACKING (+R) |
| 4 | SLOW TRACKING ⊖ |
| 5 | SLOW TRACKING (+F) |

P6565 TO LEFT CONTROL PANEL P6548-1·2

| | |
|---|---|
| 1 | CH2 LINE IN |
| 2 | GND |
| 3 | CH2 AMP OUT |
| 4 | GND |
| 5 | CH1 LINE IN |
| 6 | GND |
| 7 | CH1 AMP OUT |
| 8 | GND |
| 9 | +12V |
| 10 | ——— |

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

REF. NO.6500 SERIES.

P6667 TO RF CONVERTER

| | |
|---|---|
| 1 | 9V |
| 2 | GND |
| 3 | VIDEO IN |
| 4 | ——— |
| 5 | AUDIO IN |

P6666 TO AUDIO 2 P4010

| | |
|---|---|
| 1 | AUDIO 8P OUT |
| 2 | GND |
| 3 | CH1 LINE OUT |
| 4 | GND |
| 5 | CH2 LINE OUT |
| 6 | GND |

P6665 TO AUDIO (2) P4014

| | |
|---|---|
| 1 | T.C ON +12V |
| 2 | T.C IN |
| 3 | GND |
| 4 | ——— |
| 5 | T.C OUT |
| 6 | GND |

P6664 TO ANTENNA TERMINAL

| | |
|---|---|
| 1 | REG. +5V |
| 2 | VTR +12V |
| 3 | GND |

P6662 TO POWER SUPPLY P1005

| | |
|---|---|
| 1 | REG. +12V |
| 2 | REG. +5V |
| 3 | GND |
| 4 | REG. +5V |

P6601 TO SYSTEM CONTROL P6006

| | |
|---|---|
| 1 | $\overline{\text{IRQ}}$ |
| 2 | $\overline{\text{ADDRESS}}$ |
| 3 | GND |
| 4 | SERIAL CLOCK |
| 5 | SERIAL DATA |
| 6 | POWER RESET |
| 7 | CTL PULSE |
| 8 | ——— |

P6602 TO REAR JACK P6661

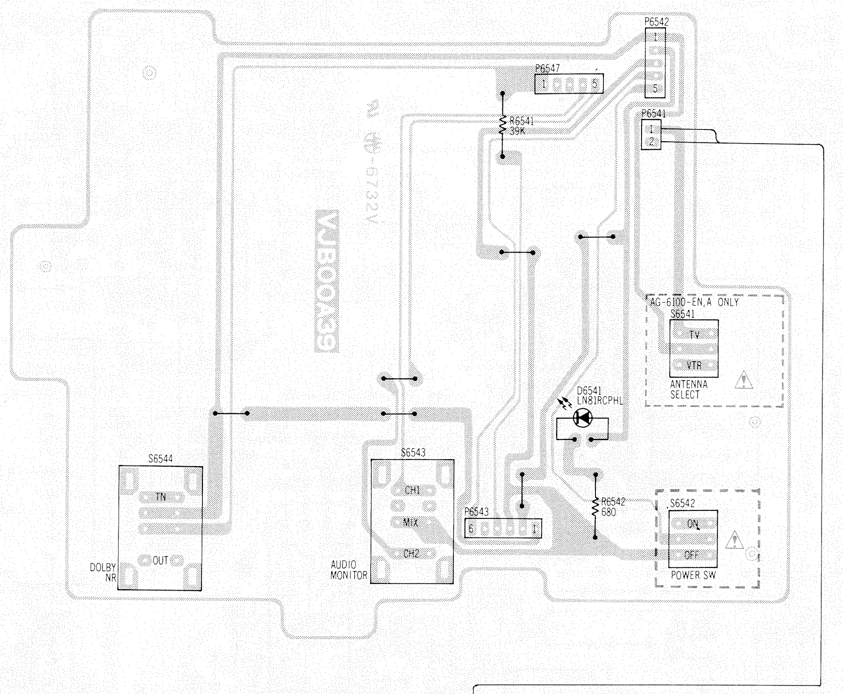
| | |
|---|---|
| 1 | PG2 |
| 2 | PG3 |
| 3 | PHO |
| 4 | PH1 |
| 5 | PH2 |
| 6 | PH3 |
| 7 | SW SCAN A1 IN |
| 8 | SW SCAN C1 IN |
| 9 | EJECT SW |
| 10 | +12V |
| 11 | +5V |
| 12 | GND |

The DC voltages in this diagram are measured in PLAY and RECORD mode.
(The voltages indicated in brackets ( ) are measured in RECORD mode.)

The Blue Coloured Parts are Used in AG-6200 Only.

# .A. (VEP00981D: AG-6200/VEP00981E: AG-6100), FRONT
# 100) & LEFT CONTROL PANEL C.B.A.
# A/VEP00A39B: AG-6100-E, B/VEP00A39A: AG-6100-EN, A)

## LEFT CONTROL PANEL C.B.A.
(VEP00A39B: AG-6100-E/B, VEP00A39A: AG-6100-EN/A)


P6542
P6547
R6541
39K
P6541
VJB00A39
AG-6100-EN/A ONLY
S6541
TV
VTR
ANTENNA SELECT
D6541
S6544
TN
OUT
DOLBY NR
S6543
CH1
MIX
CH2
AUDIO MONITOR
P6543
R6542
680
S6542
ON
OFF
POWER SW

P6542 TO POWER SUPPLY P1002

| | |
|---|---|
| 1 | REG +12V |
| 2 | REG +5V |
| 3 | GND |
| 4 | REG +5V |
| 5 | POWER SW |

P6541 TO REAR JACK P6663

| | |
|---|---|
| 1 | VTR +12V |
| 2 | GND |

P6547 TO AUDIO (2) P4011

| | |
|---|---|
| 1 | NR OUT Ⓗ |
| 2 | ———— |
| 3 | ———— |
| 4 | CH1 Ⓛ |
| 5 | CH2 Ⓛ |

P6543 TO FRONT CPU P6212

| | |
|---|---|
| 1 | +12V |
| 2 | +5V |
| 3 | GND |
| 4 | NR OUT Ⓗ |
| 5 | ———— |
| 6 | +5V |

P6668 TO LUMINANCE & CHROMINANCE P3004

| | |
|---|---|
| 1 | VIDEO OUT LINE |
| 2 | GND |
| 3 | VIDEO OUT 8P |
| 4 | GND |
| 5 | VIDEO OUT RF |
| 6 | GND |
| 7 | ———— |
| 8 | ———— |

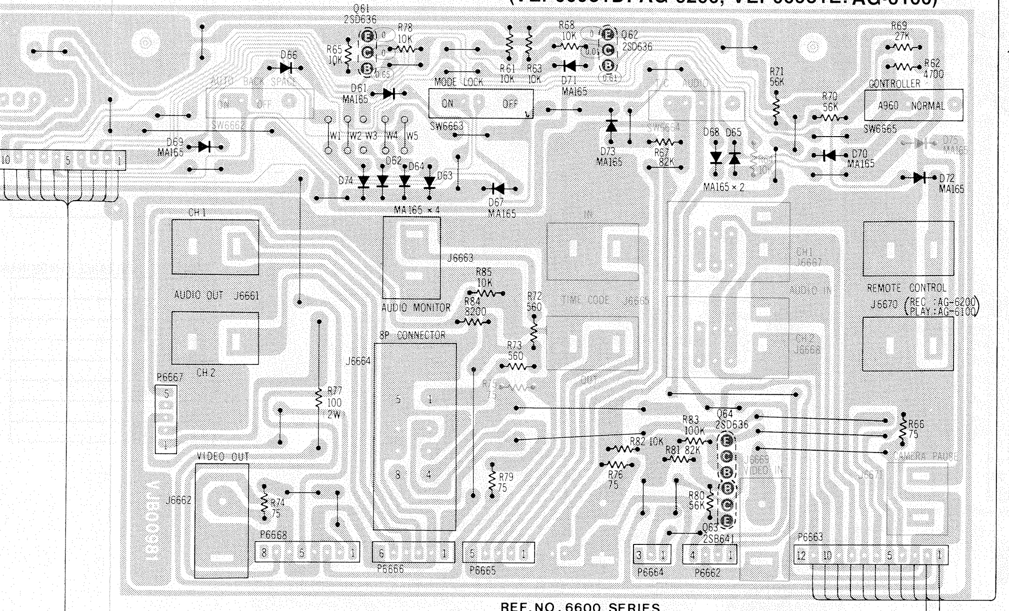
FOR AG-6100
P6663 TO LEFT CONTROL PANEL P6541

| | |
|---|---|
| 1 | VTR +12V |
| 2 | GND |

FOR AG-6200
P6663 TO LEFT CONTROL PANEL P6541

| | |
|---|---|
| 1 | VTR +12V |
| 2 | VIDEO 8P |
| 3 | GND |
| 4 | VIDEO LINE IN |
| 5 | GND |
| 6 | AUDIO 8P |
| 7 | GND |
| 8 | AUDIO CH1 LINE IN |
| 9 | GND |
| 10 | AUDIO CH2 LINE IN |
| 11 | GND |
| 12 | ———— |

## R JACK C.B.A. (VEP00981D: AG-6200, VEP00981E: AG-6100)


Q61
2SD636
R78
10K
D66
R65
10K
MODE LOCK
ON
OFF
SW6663
Q62
2SD636
R71
R70
CONTROLLER
A960 NORMAL
SW6665
D70
MA165
D72
MA165
MA165×4
D67
MA165
AUDIO OUT J6661
CH1
CH2
P6667
J6663
AUDIO MONITOR
8P CONNECTOR
J6664
REMOTE CONTROL
J5670
VIDEO OUT
J6662
P6668
P6666
P6665
P6664
P6662
P6663
Q63
2SB641
Q64
2SD636
VJB00981

REF. NO. 6600 SERIES.

P6667 TO RF CONVERTER

| | |
|---|---|
| 1 | 9V |
| 2 | GND |
| 3 | VIDEO IN |
| 4 | ———— |
| 5 | AUDIO IN |

P6666 TO AUDIO 2 P4010

| | |
|---|---|
| 1 | AUDIO 8P OUT |
| 2 | GND |
| 3 | CH1 LINE OUT |
| 4 | GND |
| 5 | CH2 LINE OUT |
| 6 | GND |

P6665 TO AUDIO (2) P4014

| | |
|---|---|
| 1 | T.C ON +12V |
| 2 | T.C IN |
| 3 | GND |
| 4 | ———— |
| 5 | T.C OUT |
| 6 | GND |

P6664 TO ANTENNA TERMINAL

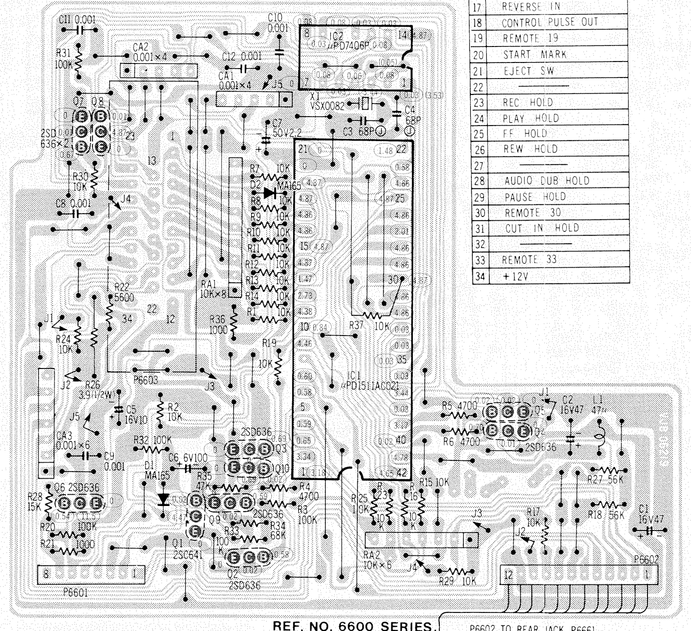
| | |
|---|---|
| 1 | REG. +5V |
| 2 | VTR +12V |
| 3 | GND |

P6662 TO POWER SUPPLY P1005

| | |
|---|---|
| 1 | REG. +12V |
| 2 | REG. +5V |
| 3 | GND |
| 4 | REG. +5V |

The DC voltages in this diagram are measured in PLAY and RECORD mode.
(The voltages indicated in brackets ( ) are measured in RECORD mode.)

## 34P CONTROL C.B.A. (VEP06219A1)


C11 0.001
C10 0.001
IC2
HD7406P
R31
100K
CA2
C12 0.001
Q7
Q8
Q3
Q4
Q5
C4
68P
IC1
μPD1511ACC
R22
R24
C5
16V10
R32 100K
R2
R35
R36
R37
R9
R6 4700
R5 4700
2SD636
C1
16V47
R27 56K
R18 56K
R17
J2
J3
J4
R29 10K
P6601
P6602
P6603
Q1
2SC641
Q2
2SD636
Q6
2SD636
R20
100K
R21
1000
R33
R34
68K

REF. NO. 6600 SERIES.

P6601 34P CONNECTOR

| | |
|---|---|
| 1 | REC SW |
| 2 | PLAY SW |
| 3 | FF SW |
| 4 | REW SW |
| 5 | STOP SW |
| 6 | AUDIO DUB SW |
| 7 | PAUSE SW |
| 8 | CASSETTE IN |
| 9 | CUT IN SW |
| 10 | FF REW SLOW DOWN |
| 11 | ———— |
| 12 | GND |
| 13 | STEP SW |
| 14 | REVERSE COUNT |
| 15 | ———— |
| 16 | ———— |
| 17 | REVERSE IN |
| 18 | CONTROL PULSE OUT |
| 19 | REMOTE 19 |
| 20 | START MARK |
| 21 | EJECT SW |
| 22 | ———— |
| 23 | REC HOLD |
| 24 | PLAY HOLD |
| 25 | FF HOLD |
| 26 | REW HOLD |
| 27 | ———— |
| 28 | AUDIO DUB HOLD |
| 29 | PAUSE HOLD |
| 30 | REMOTE 30 |
| 31 | CUT IN HOLD |
| 32 | ———— |
| 33 | REMOTE 33 |
| 34 | +12V |

P6601 TO SYSTEM CONTROL P6006

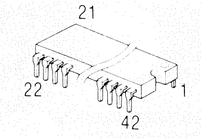
| | |
|---|---|
| 1 | $\overline{\text{IRQ}}$ |
| 2 | $\overline{\text{ADDRESS}}$ |
| 3 | GND |
| 4 | SERIAL CLOCK |
| 5 | SERIAL DATA |
| 6 | POWER RESET |
| 7 | CTL PULSE |
| 8 | ———— |

P6602 TO REAR JACK P6661

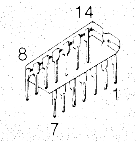
| | |
|---|---|
| 1 | PG2 |
| 2 | PG3 |
| 3 | PH0 |
| 4 | PH1 |
| 5 | PH2 |
| 6 | PH3 |
| 7 | SW SCAN A1 IN |
| 8 | SW SCAN C1 IN |
| 9 | EJECT SW |
| 10 | +12V |
| 11 | +5V |
| 12 | GND |

The Blue Coloured Parts are Used in AG-6200 Only.

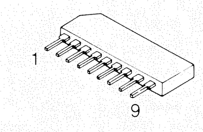
## 34P Control C.B.A. Front Jack C.B.A. Rear Jack C.B.A. ICs & Transistors Information



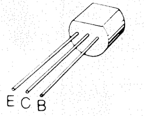
μPD1511AC



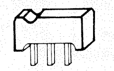
HD7406P



TA7325P



2SC641



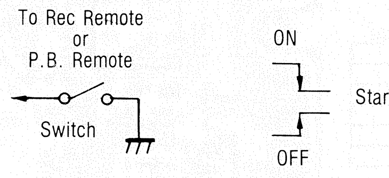
2SD636

## INFORMATION ON AVAILABLE FUNCTIONS

In order to extend the user's applications, the following functions can be achieved by disconnecting the jumper resistors.

1. Remove jumper resistor W6601 on the Rear Jack P.C.Board so that the unit will rewind the tape to the beginning when the end of the tape is reached.
2. Remove jumper resistor W6604 on the Rear Jack P.C.Board so that the unit will stop when the end of the tape is reached. (Auto Rewind Cancel)
3. Remove jumper resistor W6605 on the Rear Jack P.C.Board so that the unit will perform the direct search operation.
   (This function is identical to the NV-8500 search dial function.)
4. Record Remote Connector (REC REMOTE) or Playback Remote Connector (P.B. REMOTE) used for remote control and connect to the ON/OFF remote control unit or the Record Remote Connector of another AG-6200 or the Playback Remote Connector of another AG-6100. Record Remote Connector in the Record/Play mode.
   Playback Remote Connector in the Play mode.
   The following functions are available when the Remote switch is in the OFF position, which is a Low to High transition.

   Jumper resistors W6603 and W6602 are located on the Rear Jack P.C.Board.


To Rec Remote
or
P.B. Remote
Switch
ON
OFF
Start Recording or Playback

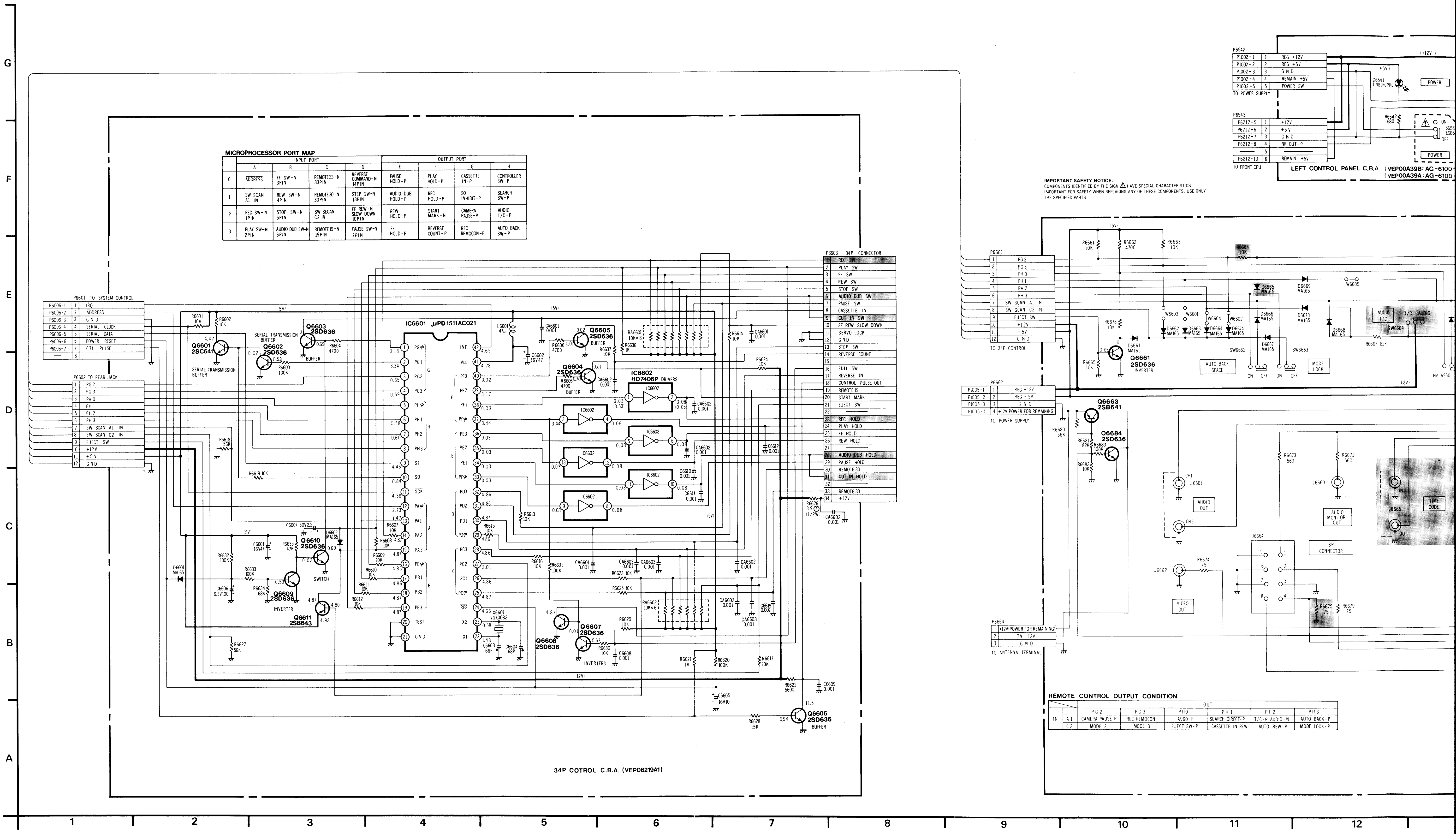
| | W6603 | W6602 | |
|---|---|---|---|
| 1 | Remove | Remove | PAUSE Mode |
| 2 | Remove | Short | EJECT mode |
| 3 | Short | Remove | REWIND is Performed first, followed by EJECT. |
| 4 | Short | Short | STOP mode |

| 34P Control C.B.A. (VEP06219A) | |
|---|---|
| Q6601 | B-10 |
| Q6602 | B-10 |
| Q6603 | B-10 |
| Q6604 | B-11 |
| Q6605 | B-11 |
| Q6606 | B-10 |
| Q6607 | C-11 |
| Q6608 | C-10 |
| Q6609 | B-10 |
| Q6610 | B-10 |
| IC6601 | C-11 |
| IC6602 | D-11 |

| Rear Jack C.B.A. (VEP00981D, E) | |
|---|---|
| Q6661 | D-7 |
| Q6662 | D-8 |
| Q6663 | B-8 |
| Q6664 | B-8 |

| Front Jack C.B.A. (VEP00978A) | |
|---|---|
| Q6561 | B-3 |
| IC6561 | B-3 |

# 34P CONTROL, FRONT JACK, REAR JACK & LEFT CONTROL PANEL SCHEMATIC DIAGRAM


G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
P6601 TO SYSTEM CONTROL
IRQ
ADDRESS
G N D
SERIAL CLOCK
SERIAL DATA
POWER RESET
CTL PULSE
P6602 TO REAR JACK
PG 2
PG 3
PH 0
PH 1
PH 2
PH 3
SW SCAN A1 IN
SW SCAN C2 IN
EJECT SW
+12V
+5V
G N D
Q6601 2SC641
SERIAL TRANSMISSION BUFFER
Q6602 2SD636
Q6603 2SD636
BUFFER
IC6601 μPD1511AC021
Q6604 2SD636
BUFFER
Q6605 2SD636
BUFFER
IC6602 HD7406P DRIVERS
RA6601 10K×8
RA6602 10K×6
Q6607 2SD636
Q6608 2SD636
INVERTERS
Q6606 2SD636
BUFFER
Q6609 2SD636
INVERTER
Q6610 2SD636
SWITCH
Q6611 2SB643
D6601 MA165
D6602 MA165
X6601 VSX0082
L6601 47μ
(5V)
(12V)
P6603 34P CONNECTOR
1 REC SW
2 PLAY SW
3 FF SW
4 REW SW
5 STOP SW
6 AUDIO DUB SW
7 PAUSE SW
8 CASSETTE IN
9 CUT IN SW
10 FF REW SLOW DOWN
11 SERVO LOCK
12 G N D
13 STEP SW
14 REVERSE COUNT
15
16 EDIT SW
17 REVERSE IN
18 CONTROL PULSE OUT
19 REMOTE 19
20 START MARK
21 EJECT SW
22
23 REC HOLD
24 PLAY HOLD
25 FF HOLD
26 REW HOLD
27
28 AUDIO DUB HOLD
29 PAUSE HOLD
30 REMOTE 30
31 CUT IN HOLD
32
33 REMOTE 33
34 +12V
R6626 3.9 (1/2W)
CA6603 0.001
34P COTROL C.B.A. (VEP06219A1)
P6542
P1002-1 1 REG +12V
P1002-2 2 REG +5V
P1002-3 3 G N D
P1002-4 4 REMAIN +5V
P1002-5 5 POWER SW
TO POWER SUPPLY
P6543
P6212-5 1 +12V
P6212-6 2 +5 V
P6212-7 3 G N D
P6212-8 4 NR OUT-P
5
P6212-10 6 REMAIN +5V
TO FRONT CPU
D6541 LN81RCPHL
R6542 680
POWER
ON
OFF
LEFT CONTROL PANEL C.B.A (VEP00A39B: AG-6100
(VEP00A39A: AG-6100
P6661
PG 2
PG 3
PH 0
PH 1
PH 2
PH 3
SW SCAN A1 IN
SW SCAN C2 IN
EJECT SW
+12V
+5V
G N D
TO 34P CONTROL
R6661 10K
R6662 4700
R6663 10K
R6664 10K
Q6661 2SD636
INVERTER
AUTO BACK SPACE
MODE LOCK
AUDIO T/C
T/C AUDIO
SW6664
SW6662
SW6663
W6605
P6662
P1005-1 1 REG +12V
P1005-2 2 REG +5V
P1005-3 3 G N D
P1005-4 4 +12V POWER FOR REMAINING
TO POWER SUPPLY
Q6663 2SB641
Q6684 2SD636
J6661
CH1
CH2
AUDIO OUT
J6662
VIDEO OUT
J6663
AUDIO MONITOR OUT
J6664
8P CONNECTOR
J6665
IN
OUT
TIME CODE
P6664
1 +12V POWER FOR REMAINING
2 TV 12V
3 G N D
TO ANTENNA TERMINAL

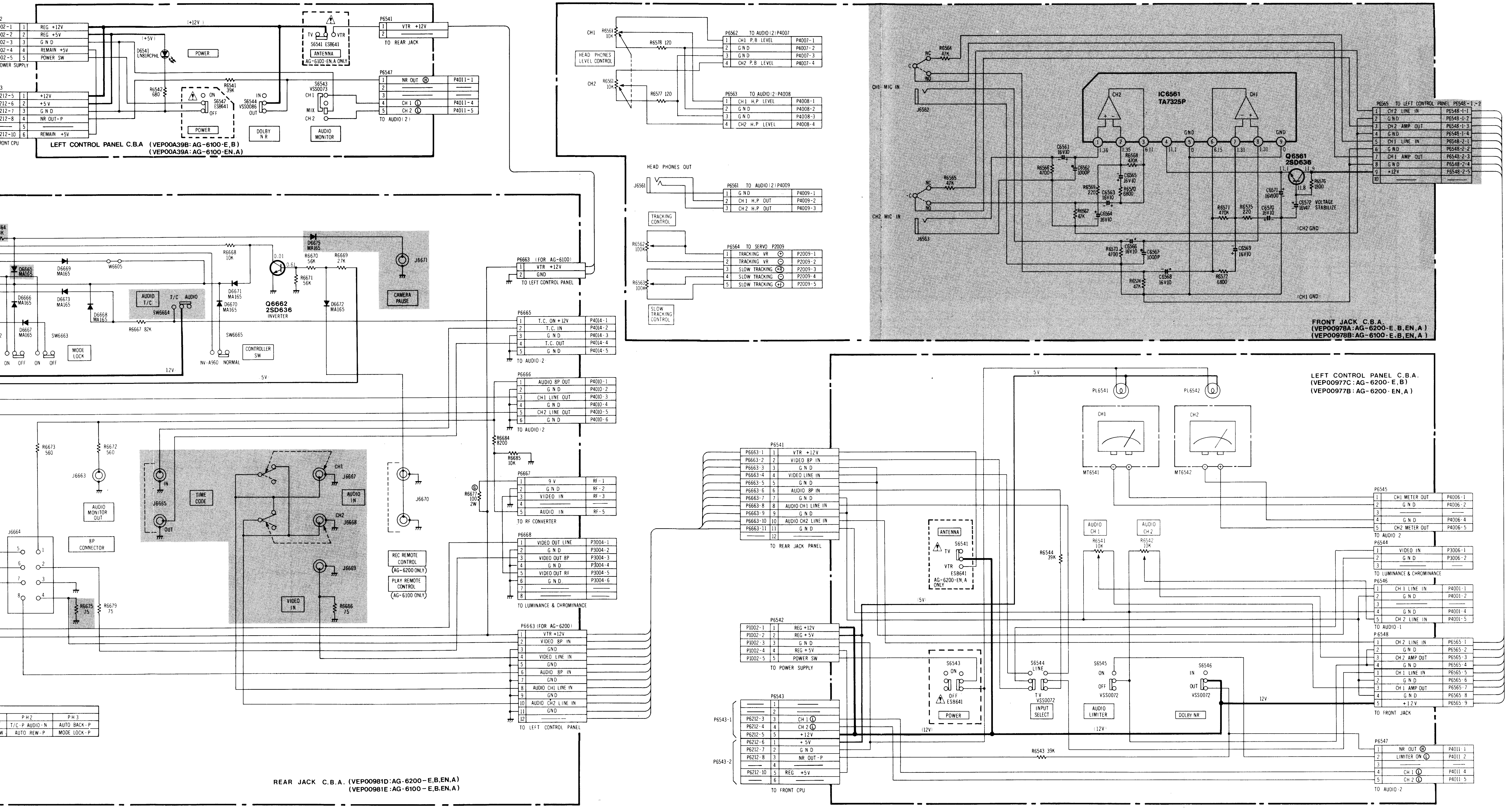
**MICROPROCESSOR PORT MAP**

| | INPUT PORT | | | | OUTPUT PORT | | | |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H |
| 0 | ADDRESS | FF SW-N<br>3PIN | REMOTE33-N<br>33PIN | REVERSE COMMAND-N<br>14PIN | PAUSE HOLD-P | PLAY HOLD-P | CASSETTE IN-P | CONTROLLER SW-P |
| 1 | SW SCAN A1 IN | REW SW-N<br>4PIN | REMOTE30-N<br>30PIN | STEP SW-N<br>13PIN | AUDIO DUB HOLD-P | REC HOLD-P | SO INHIBIT-P | SEARCH SW-P |
| 2 | REC SW-N<br>1PIN | STOP SW-N<br>5PIN | SW SECAN C2 IN | FF REW-N SLOW DOWN<br>10PIN | REW HOLD-P | START MARK-N | CAMERA PAUSE-P | AUDIO T/C-P |
| 3 | PLAY SW-N<br>2PIN | AUDIO DUB SW-N<br>6PIN | REMOTE19-N<br>19PIN | PAUSE SW-N<br>7PIN | FF HOLD-P | REVERSE COUNT-P | REC REMOCON-P | AUTO BACK SW-P |

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

**REMOTE CONTROL OUTPUT CONDITION**

| | | OUT | | | | | |
|---|---|---|---|---|---|---|---|
| | | PG2 | PG3 | PH0 | PH1 | PH2 | PH3 |
| IN | A1 | CAMERA PAUSE-P | REC REMOCON | A960-P | SEARCH DIRECT-P | T/C-P AUDIO-N | AUTO BACK-P |
| | C2 | MODE 2 | MODE 3 | EJECT SW-P | CASSETTE IN REW | AUTO REW-P | MODE LOCK-P |

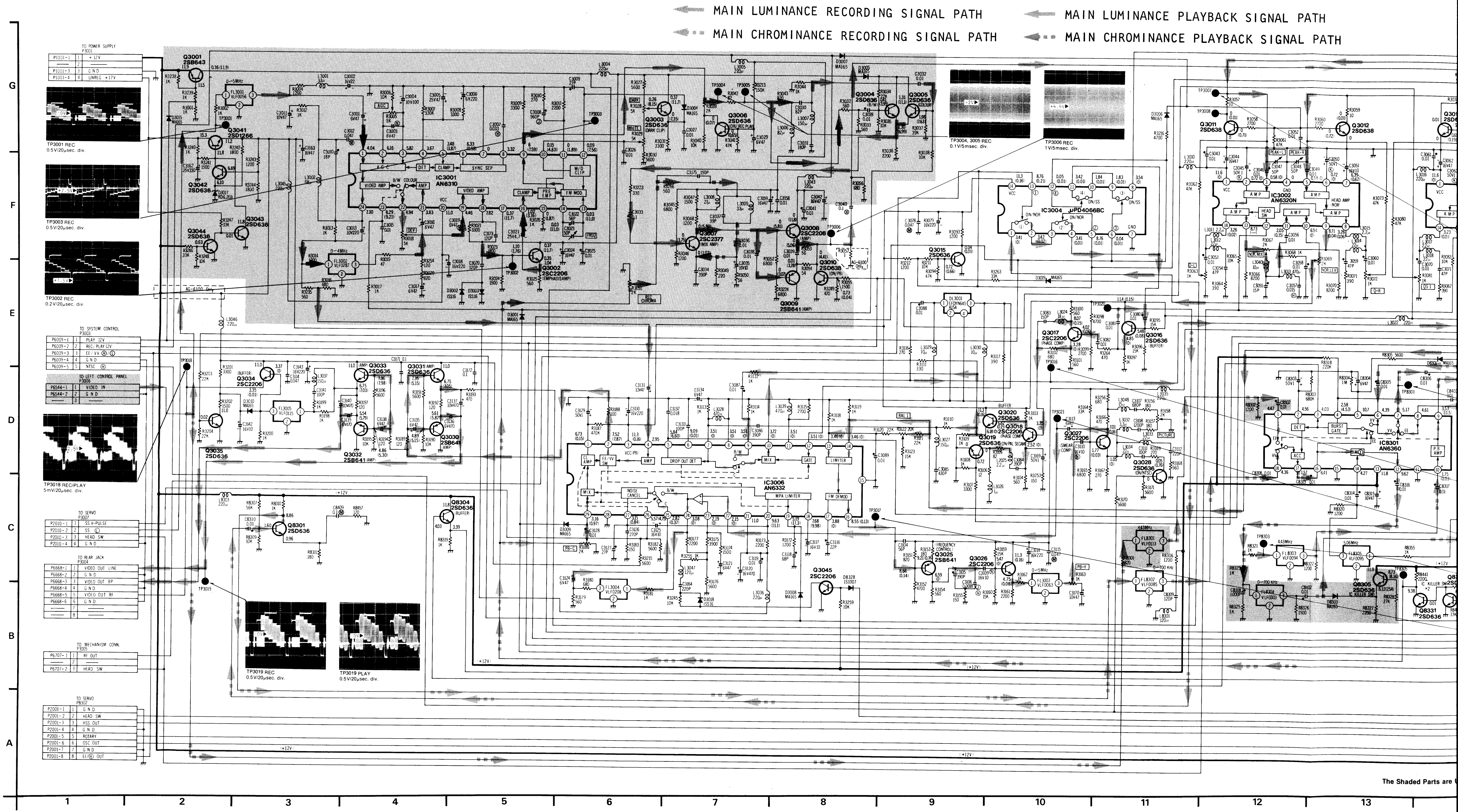

LEFT CONTROL PANEL C.B.A (VEP00A39B: AG-6100-E,B)
(VEP00A39A: AG-6100-EN,A)
REG +12V
REG +5V
GND
REMAIN +5V
POWER SW
+12V
+5V
NR OUT-P
REMAIN +5V
POWER
D6541 LN81RCPHL
R6542 680
R6541 39K
S6542 ESB641
ON
OFF
S6544 VSS0086
IN
OUT
DOLBY NR
S6541 ESB641
TV
VTR
ANTENNA
AG-6100-EN,A ONLY
S6543 VSS0073
CH 1
MIX
CH 2
AUDIO MONITOR
P6541
VTR +12V
TO REAR JACK
P6547
NR OUT Ⓗ
P4011-1
CH 1 Ⓛ
P4011-4
CH 2 Ⓛ
P4011-5
TO AUDIO (2)
HEAD PHONES LEVEL CONTROL
CH1
CH2
R6561 10K
R6578 120
R6577 120
P6562 TO AUDIO (2) P4007
CH1 P.B LEVEL
CH2 P.B LEVEL
P4007-1
P4007-2
P4007-3
P4007-4
P6563 TO AUDIO (2) P4008
CH1 H.P LEVEL
CH2 H.P LEVEL
P4008-1
P4008-2
P4008-3
P4008-4
HEAD PHONES OUT
J6561
P6561 TO AUDIO (2) P4009
CH1 H.P OUT
CH2 H.P OUT
P4009-1
P4009-2
P4009-3
TRACKING CONTROL
R6562 100K
R6563 100K
SLOW TRACKING CONTROL
P6564 TO SERVO P2009
TRACKING VR ⊕
TRACKING VR ⊖
SLOW TRACKING ⊕
SLOW TRACKING ⊖
SLOW TRACKING ⊕
P2009-1
P2009-2
P2009-3
P2009-4
P2009-5
CH1 MIC IN
CH2 MIC IN
J6562
J6563
NC
C
NO
R6564 47K
R6565 47K
IC6561 TA7325P
GND
Q6561 2SD636
R6576 1800
C6572 16V47 VOLTAGE STABILIZE
C6561 16V10
R6566 4700
C6562 1000P
R6568 470K
C6565 16V10
C6570 6800
R6569 220
C6563 16V10
R6567 47K
C6564 16V10
R6573 4700
C6566 16V10
C6567 1000P
R6574 47K
C6568 16V10
R6571 470K
R6575 220
C6570 16V10
C6571 16V100
C6569 16V10
R6572 6800
(CH2 GND)
(CH1 GND)
P6565 TO LEFT CONTROL PANEL P6548-1-2
CH2 LINE IN
CH2 AMP OUT
CH1 LINE IN
CH1 AMP OUT
+12V
P6548-1-1
P6548-1-2
P6548-1-3
P6548-1-4
P6548-2-1
P6548-2-2
P6548-2-3
P6548-2-4
P6548-2-5
FRONT JACK C.B.A.
(VEP00978A: AG-6200-E,B,EN,A)
(VEP00978B: AG-6100-E,B,EN,A)
D6665 MA165
D6669 MA165
W6605
D6666 MA165
D6673 MA165
D6668 MA165
D6667 MA165
SW6663
MODE LOCK
AUDIO T/C
T/C AUDIO
SW6664
R6667 82K
D6671 MA165
D6670 MA165
NV-A960 NORMAL
SW6665
CONTROLLER SW
R6668 10K
Q6662 2SD636 INVERTER
R6670 56K
R6669 27K
R6671 56K
D6675 MA165
D6672 MA165
J6671
CAMERA PAUSE
ON OFF ON OFF
12V
5V
P6663 (FOR AG-6100)
VTR +12V
GND
TO LEFT CONTROL PANEL
P6665
T.C. ON +12V
T.C. IN
T.C. OUT
P4014-1
P4014-2
P4014-3
P4014-4
P4014-5
TO AUDIO 2
P6666
AUDIO 8P OUT
CH1 LINE OUT
CH2 LINE OUT
P4010-1
P4010-2
P4010-3
P4010-4
P4010-5
P4010-6
TO AUDIO 2
R6684 8200
R6685 10K
P6667
9 V
VIDEO IN
AUDIO IN
RF-1
RF-2
RF-3
RF-5
TO RF CONVERTER
R6677 100 2W
P6668
VIDEO OUT LINE
VIDEO OUT 8P
VIDEO OUT RF
P3004-1
P3004-2
P3004-3
P3004-4
P3004-5
P3004-6
TO LUMINANCE & CHROMINANCE
R6673 560
R6672 560
J6663
AUDIO MONITOR OUT
J6664
8P CONNECTOR
R6675 75
R6679 75
J6665
IN
OUT
TIME CODE
CH1
J6667
AUDIO IN
CH2
J6668
J6669
VIDEO IN
R6666 75
J6670
REC REMOTE CONTROL (AG-6200 ONLY)
PLAY REMOTE CONTROL (AG-6100 ONLY)
P6663 (FOR AG-6200)
VTR +12V
VIDEO 8P IN
VIDEO LINE IN
AUDIO 8P IN
AUDIO CH1 LINE IN
AUDIO CH2 LINE IN
TO LEFT CONTROL PANEL
PH2
PH3
T/C·P AUDIO-N
AUTO BACK-P
AUTO REW-P
MODE LOCK-P
REAR JACK C.B.A. (VEP00981D: AG-6200-E,B,EN,A)
(VEP00981E: AG-6100-E,B,EN,A)
LEFT CONTROL PANEL C.B.A.
(VEP00977C: AG-6200-E,B)
(VEP00977B: AG-6200-EN,A)
PL6541
PL6542
MT6541
MT6542
P6541
P6663-1 … P6663-12
VTR +12V
VIDEO 8P IN
VIDEO LINE IN
AUDIO 8P IN
AUDIO CH1 LINE IN
AUDIO CH2 LINE IN
TO REAR JACK PANEL
ANTENNA
S6541
TV
VTR
ESB641
AG-6200-EN,A ONLY
AUDIO CH 1
AUDIO CH 2
R6541 10K
R6542 10K
R6544 39K
(5V)
P6542
P1002-1 … P1002-5
REG +12V
REG +5V
REG +5V
POWER SW
TO POWER SUPPLY
P6543
P6543-1
P6543-2
P6212-3 … P6212-10
CH 1 Ⓛ
CH 2 Ⓛ
+12V
+5V
NR OUT-P
REG +5V
TO FRONT CPU
S6543
ON
OFF
ESB641
POWER
(12V)
S6544
LINE
TV
VSS0072
INPUT SELECT
S6545
ON
OFF
VSS0072
AUDIO LIMITER
(12V)
S6546
IN
OUT
VSS0072
DOLBY NR
12V
R6543 39K
P6545
CH1 METER OUT
CH2 METER OUT
P4006-1
P4006-2
P4006-4
P4006-5
TO AUDIO 2
P6544
VIDEO IN
P3006-1
P3006-2
TO LUMINANCE & CHROMINANCE
P6546
CH 1 LINE IN
CH 2 LINE IN
P4001-1
P4001-2
P4001-4
P4001-5
TO AUDIO 1
P6548
CH 2 LINE IN
CH 2 AMP OUT
CH 1 LINE IN
CH 1 AMP OUT
+12V
P6565-1 … P6565-9
TO FRONT JACK
P6547
NR OUT Ⓗ
LIMITER ON Ⓛ
CH 1 Ⓛ
CH 2 Ⓛ
P4011 1
P4011 2
P4011 4
P4011·5
TO AUDIO·2

The Shaded Parts are Used in AG-6200 Only.

**The DC voltages in this diagram are measured in PLAY and RECORD mode.**
**(The voltages indicated in brackets (      ) are measured in RECORD mode.)**

12 13 14 15 16 17 18 19 20 21 22 23

# LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM


MAIN LUMINANCE RECORDING SIGNAL PATH
MAIN LUMINANCE PLAYBACK SIGNAL PATH
MAIN CHROMINANCE RECORDING SIGNAL PATH
MAIN CHROMINANCE PLAYBACK SIGNAL PATH

TP3001 REC
0.5V/20μsec. div.

TP3003 REC
0.5V/20μsec. div.

TP3002 REC
0.2V/20μsec. div.

TP3018 REC/PLAY
5mV/20μsec. div.

TP3019 REC
0.5V/20μsec. div.

TP3019 PLAY
0.5V/20μsec. div.

TP3004, 3005 REC
0.1V/5msec. div.

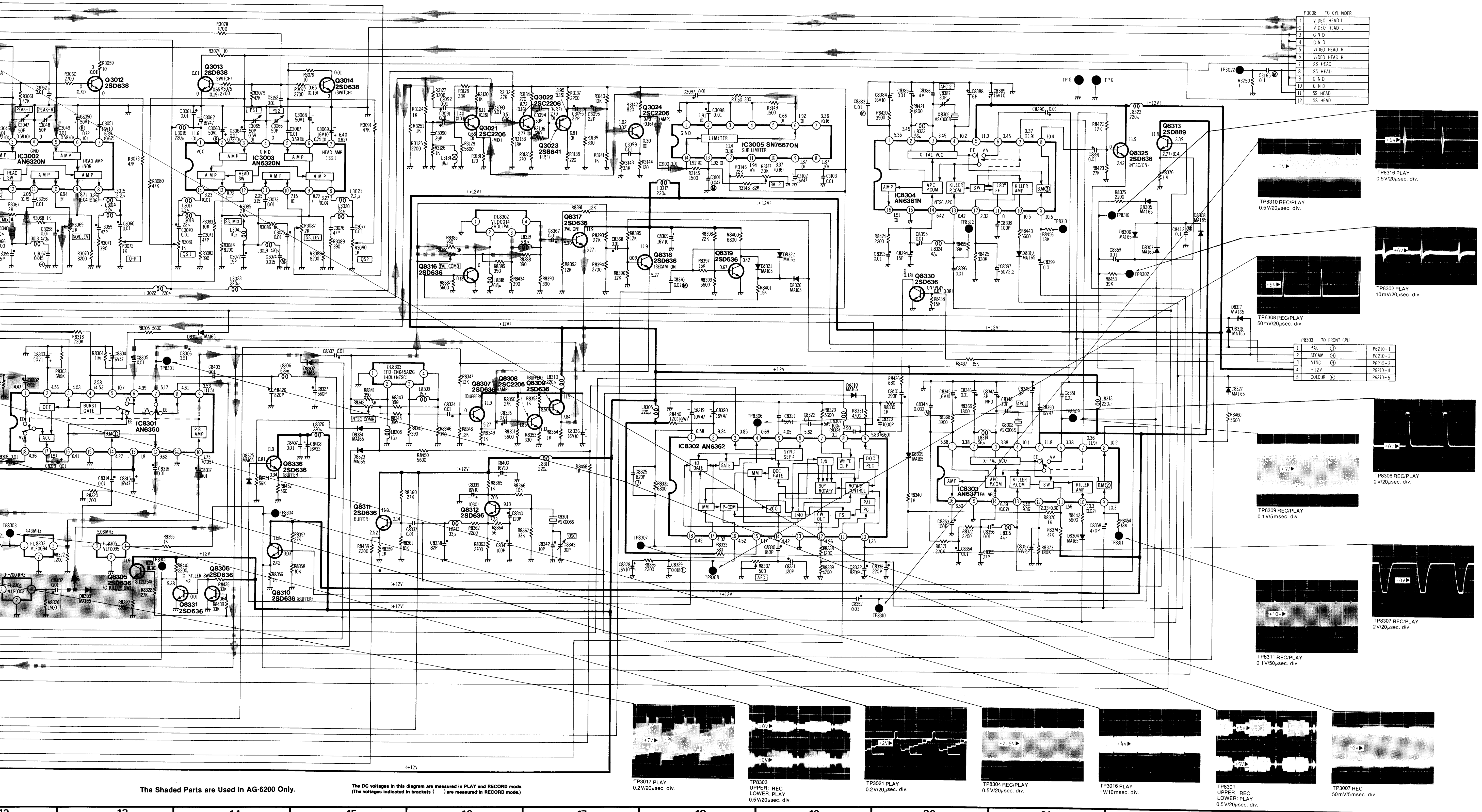
TP3006 REC
1V/5msec. div.

TO POWER SUPPLY
P3001
P1001-1 1 + 12V
2
P1001-3 3 GND
P1001-4 4 UNREG +17V
TO SYSTEM CONTROL
P3003
P6009-1 1 PLAY 12V
P6009-2 2 REC/PLAY 12V
P6009-3 3 EE/VV Ⓗ/Ⓛ
P6009-4 4 GND
P6009-5 5 NTSC Ⓗ
TO LEFT CONTROL PANEL
P3006
P6544-1 1 VIDEO IN
P6544-2 2 GND
3
TO SERVO
P3007
P2010-1 1 SS V-PULSE
P2010-2 2 SS Ⓛ
P2010-3 3 HEAD SW
P2010-4 4 GND
TO REAR JACK
P3004
P6668-1 1 VIDEO OUT LINE
P6668-2 2 GND
P6668-3 3 VIDEO OUT 8P
P6668-4 4 GND
P6668-5 5 VIDEO OUT RF
P6668-6 6 GND
7
8
TO MECHANISM CONN.
P3005
P6707-1 1 RF OUT
2
P6707-2 3 HEAD SW
TO SERVO
P8302
P2001-1 1 GND
P2001-2 2 HEAD SW
P2001-3 3 HSS OUT
P2001-4 4 GND
P2001-5 5 ROTARY
P2001-6 6 OSC OUT
P2001-7 7 GND
P2001-8 8 EE/Ⓗ OUT
+0V
+7.5V
+1.5V
2.5V
+2V
+4.4V
Q3001 2SB643
Q3041 2SD1266
Q3042 2SD636
Q3043 2SD636
Q3044 2SD636
FL3001 VLF0056
FL3002 VLF0287
IC3001 AN6310
AGC
A G C
SYNC SEP
VIDEO AMP
DET
CLAMP
B/W COLOUR
AMP
W/D CLIP
PRE EMP
FM MOD
DEV
Q3002 2SC2206 (EMPHASIS AMP)
Q3003 2SD636 (DARK CLIP)
Q3006 2SD636 (ON/REC PLAY)
Q3007 2SC2377 (MIX AMP)
Q3008 2SC2206 (AMP)
Q3010 2SD638 (ON/PB)
Q3009 2SB641 (AMP)
Q3004 2SD636 (B/W)
Q3005 2SD636 (COLOUR)
REC CHROMA
AG-6100 Only
IC3004 μPD4066BC
ON/SS
ON/NOR
VCC
GND
Q3015 2SD636
Q3011 2SD638
Q3012 2SD638
IC3002 AN6320N
HEAD SW
HEAD AMP
PEAK-L
PEAK-R
NOR LEV
NOR MIX
DL3001 EFDY645
Q3017 2SC2206 (PHASE COMP)
Q3016 2SD636 (BUFFER)
Q3034 2SC2206
Q3035 2SD636
Q3033 2SD636 (AMP)
Q3031 2SD636 (AMP)
Q3032 2SB641 (AMP)
Q3030 2SB641 (AMP)
FL3005 VLF0115
IC3006 AN6332
EE/VV SW
DROP OUT DET
MIX
GATE
LIMITER
NOISE CANCEL
B/W
MPA LIMITER
FM DEMOD
VCC(PB)
Q3020 2SD636 (BUFFER)
Q3019 2SD636 (ON/PAL SECAM)
Q3018 2SC2206 (PHASE COMP)
Q3027 2SC2206 (SMEAR COMP)
Q3028 2SD636 (ON/NTSC)
PICTURE
Q8301 2SD636
Q8304 2SD636 (BUFFER)
Q3045 2SC2206
Q3025 2SB641
Q3026 2SC2206
FL3004 VLF0208
FL3003 VLF0063
FL8302 VLF0085
FL8301 VLF0133
4.43MHz
0~700 KHz
0~5MHz
0~4MHz
PB-C
PB-Y
TP3001
TP3002
TP3003
TP3004
TP3005
TP3006
TP3007
TP3008
TP3016
TP3017
TP3018
TP3019
TP3020
TP3021
IC8301 AN6360
DET
BURST GATE
ACC
P.B AMP
TP8301
TP8303
FL8303 VLF0094
FL8305 VLF0095
5.06MHz
4.43MHz
Q8305 2SD636 (C KILLER SW)
Q8331 2SD636
+12V
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13

The Shaded Parts are

IGNAL PATH

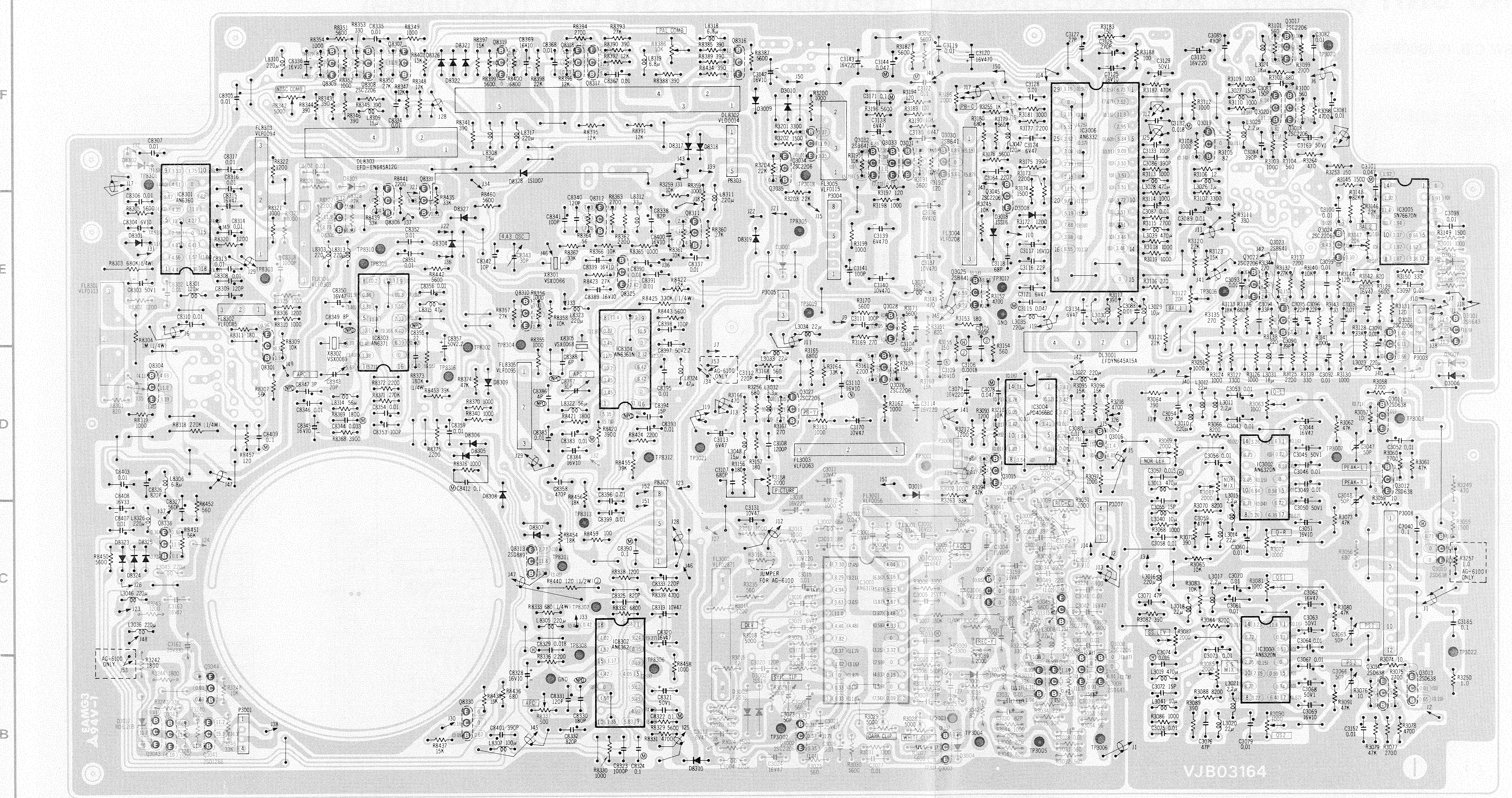
SIGNAL PATH


P3008 TO CYLINDER
1 VIDEO HEAD L
2 VIDEO HEAD L
3 GND
4 GND
5 VIDEO HEAD R
6 VIDEO HEAD R
7 SS HEAD
8 SS HEAD
9 GND
10 GND
11 SS HEAD
12 SS HEAD
P8303 TO FRONT CPU
1 PAL Ⓗ P6210-1
2 SECAM Ⓗ P6210-2
3 NTSC Ⓗ P6210-3
4 +12V P6210-4
5 COLOUR Ⓗ P6210-5
IC3002 AN6320N
IC3003 AN6320N
IC3005 SN76670N SUB LIMITER
IC8301 AN6360
IC8302 AN6362
IC8303 AN6371
IC8304 AN6361N
Q3012 2SD638
Q3013 2SD638 (SWITCH)
Q3014 2SD638 (SWITCH)
Q3021 2SC2206
Q3022 2SC2206
Q3023 2SB641
Q3024 2SC2206
Q8305 2SD636
Q8306 2SD636
Q8307 2SD636
Q8308 2SC2206
Q8309 2SD636
Q8310 2SD636 (BUFFER)
Q8311 2SD636 (BUFFER)
Q8312 2SD636
Q8313 2SD889
Q8316 2SD636
Q8317 2SD636 (PAL ON)
Q8318 2SD636 (SECAM ON)
Q8319 2SD636
Q8325 2SD636 (NTSC ON)
Q8330 2SD636
Q8331 2SD636
DL8302 VLD0014 (HDL PAL)
DL8303 EFD-EN645A12G (HDL NTSC)
TPG
TP8316 PLAY
0.5V/20μsec. div.
TP8310 REC/PLAY
0.5V/20μsec. div.
TP8302 PLAY
10mV/20μsec. div.
TP8308 REC/PLAY
50mV/20μsec. div.
TP8306 REC/PLAY
2V/20μsec. div.
TP8309 REC/PLAY
0.1V/5msec. div.
TP8307 REC/PLAY
2V/20μsec. div.
TP8311 REC/PLAY
0.1V/50μsec. div.
TP3017 PLAY
0.2V/20μsec. div.
TP8303
UPPER: REC
LOWER: PLAY
0.5V/20μsec. div.
TP3021 PLAY
0.2V/20μsec. div.
TP8304 REC/PLAY
0.5V/20μsec. div.
TP3016 PLAY
1V/10msec. div.
TP8301
UPPER: REC
LOWER: PLAY
0.5V/20μsec. div.
TP3007 REC
50mV/5msec. div.
12
13
14
15
16
17
18
19
20
21
22
23
24

**The Shaded Parts are Used in AG-6200 Only.**

**The DC voltages in this diagram are measured in PLAY and RECORD mode.**
**(The voltages indicated in brackets ( ) are measured in RECORD mode.)**

# LUMINANCE & CHROMINANCE C.B.A. (VEP03164C: AG-6200/VEP03164D: AG-6100)



| P8302 | TO SERVO P2001 |
|---|---|
| 1 | G N D |
| 2 | HEAD SW |
| 3 | HSS OUT |
| 4 | G N D |
| 5 | ROTARY |
| 6 | OSC OUT (4.43MHz) |
| 7 | GND |
| 8 | EE/Ⓗ OUT |

| P8303 | TO FRONT CPU P6210 |
|---|---|
| 1 | PAL Ⓗ |
| 2 | SECAM Ⓗ |
| 3 | NTSC Ⓗ |
| 4 | +12V Ⓗ |
| 5 | COLOUR Ⓗ |

| P3001 | TO POWER SUPPLY P1001 |
|---|---|
| 1 | +12V |
| 2 | ———— |
| 3 | G N D |
| 4 | UNREG +17V |

| P3003 | TO SYSTEM CONTROL P6009 |
|---|---|
| 1 | PLAY 12V |
| 2 | REC/PLAY 12V |
| 3 | EE/VV Ⓗ/Ⓛ |
| 4 | G N D |
| 5 | NTSC Ⓗ |

| P3004 | TO REAK JACK P6668 |
|---|---|
| 1 | VIDEO OUT LINE |
| 2 | G N D |
| 3 | VIDEO OUT 8P |
| 4 | G N D |
| 5 | VIDEO OUT RF |
| 6 | G N D |
| 7 | ———— |
| 8 | ———— |

| P3005 | TO MECHANISM CONN. P6707 |
|---|---|
| 1 | RF OUT |
| 2 | ———— |
| 3 | HEAD SW |

| P3006 | TO LEFT CONTROL PANEL P6544 |
|---|---|
| 1 | VIDEO IN |
| 2 | GND |
| 3 | ———— |

| P3007 | TO SERVO P2010 |
|---|---|
| 1 | SS V-PULSE |
| 2 | SS Ⓛ |
| 3 | HEAD SW |
| 4 | G N D |

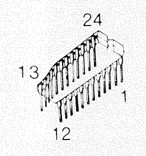
| P3008 | TO CYLINDER |
|---|---|
| 1 | VIDEO HEAD L |
| 2 | VIDEO HEAD L |
| 3 | G N D |
| 4 | G N D |
| 5 | VIDEO HEAD R |
| 6 | VIDEO HEAD R |
| 7 | SS HEAD |
| 8 | SS HEAD |
| 9 | G N D |
| 10 | G N D |
| 11 | SS HEAD |
| 12 | SS HEAD |

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165.
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636 (NPN TYPE).
THE MEASUREMENT MODE OF THE DC VOLTAGE IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (  ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.

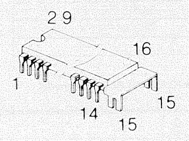
The Blue Coloured Parts are Used in AG-6200 Only.

| Luminance & Chrominance C.B.A. (VEP03164C) | |
|---|---|
| Q3001 | E-9 |
| Q3002 | B-6 |
| Q3003 | B-7 |
| Q3004 | B-7 |
| Q3005 | B-7 |
| Q3006 | C-7 |
| Q3007 | C-7 |
| Q3008 | B-7 |
| Q3009 | B-8 |
| Q3010 | C-9 |
| Q3011 | D-9 |
| Q3012 | D-9 |
| Q3013 | B-9 |
| Q3014 | B-9 |
| Q3015 | D-7 |
| Q3016 | D-8 |
| Q3017 | F-9 |
| Q3018 | F-9 |
| Q3019 | F-8 |
| Q3020 | F-9 |
| Q3021 | E-9 |
| Q3022 | E-9 |
| Q3023 | E-9 |
| Q3024 | E-9 |
| Q3025 | E-7 |
| Q3027 | D-6 |
| Q3028 | E-6 |
| Q3030 | F-7 |
| Q3031 | F-6 |
| Q3032 | F-6 |
| Q3033 | F-6 |
| Q3034 | F-6 |
| Q3035 | F-6 |
| Q3041 | B-2 |
| Q3042 | B-2 |
| Q3043 | B-1 |
| Q3044 | B-2 |
| Q3045 | E-7 |
| | |
| Q8301 | D-2 |
| Q8303 | D-2 |
| Q8304 | D-1 |
| Q8305 | E-3 |
| Q8306 | E-3 |
| Q8307 | F-3 |
| Q8308 | F-3 |
| Q8309 | F-3 |
| Q8310 | E-4 |
| Q8311 | E-5 |
| Q8312 | E-4 |
| Q8313 | C-4 |
| Q8316 | F-5 |
| Q8317 | F-4 |
| Q8318 | F-4 |
| Q8319 | F-4 |
| Q8325 | E-5 |
| Q8330 | B-3 |
| Q8331 | E-3 |
| Q8336 | C-1 |
| | |
| IC3001 | C-6 |
| IC3002 | D-9 |
| IC3003 | C-9 |
| IC3004 | D-7 |
| IC3005 | E-9 |
| IC3006 | F-8 |
| IC8301 | E-2 |
| IC8302 | E-4 |
| IC8303 | E-3 |
| IC8304 | D-4 |

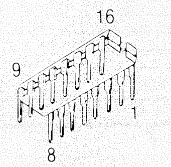
## Luminance & Chrominance C.B.A. ICs & Transistors Information



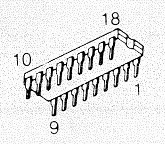
AN6310



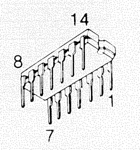
AN6332



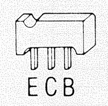
AN6361N



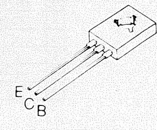
AN6360
AN6362



AN6320N
SN76670N



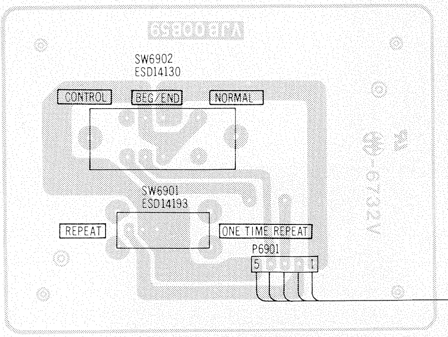
2SB641
2SB643
2SC2206
2SC2377
2SD636
2SD638



2SC1847

# FRONT CPU C.B.A. (VEP06189D: AG-6200/VEP06189E: AG-6100), COUNTER C.B.A. (VEP00B25A1) & KEY BOARD UNIT (ESB9462: AG-6200/ESB9466: AG-6100), MODE SW C.B. (VJB00B59)

MODE SW C.B. (VJB00B59)


VJB00B59
SW6902
ESD14130
CONTROL
BEG/END
NORMAL
SW6901
ESD14193
REPEAT
ONE TIME REPEAT
P6901
5
1
6732V

P6301 TO FRONT CPU P6213

| | |
|---|---|
| 1 | 25Hz – P |
| 2 | E240 – N |
| 3 | —— |
| 4 | REMAIN +5V |
| 5 | GND |
| 6 | FILAMENT |
| 7 | FILAMENT |
| 8 | –30V |

P6302 TO FRONT CPU P6205

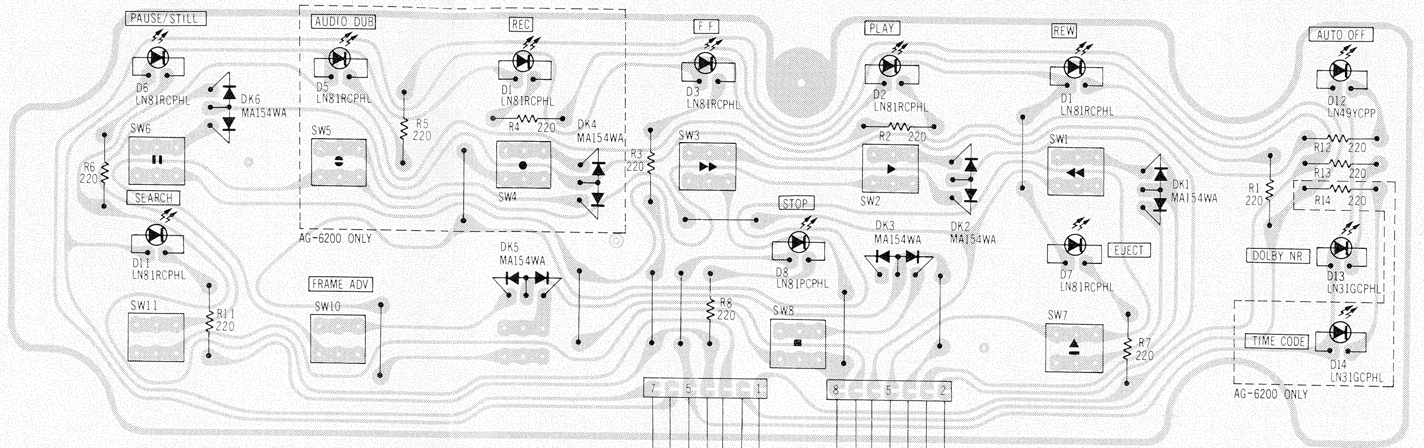
| | |
|---|---|
| 1 | IRQ |
| 2 | ADDRESS |
| 3 | SERIAL CLOCK |
| 4 | SERIAL DATA |
| 5 | CTL PULSE |
| 6 | SUPPLY HALL IC |
| 7 | TAKEUP HALL IC |
| 8 | —— |

P6304 TO FRONT CPU P6206

| | |
|---|---|
| 1 | SEARCH1 – N |
| 2 | SEARCH2 – N |
| 3 | SEARCH3 – N |
| 4 | SEARCH4 – N |
| 5 | —— |

P6305 TO MODE SW P6901

| | |
|---|---|
| 1 | BEG·END ENABLE |
| 2 | ONE TIME REPEAT SW |
| 3 | CONTROL MODE Ⓛ |
| 4 | BEG·END MODE Ⓛ |
| 5 | GND |


PAUSE/STILL
D6
LN81RCPHL
DK6
MA154WA
SW6
R6
220
SEARCH
D11
LN81RCPHL
SW11
R11
220
AUDIO DUB
D5
LN81RCPHL
SW5
R5
220
AG-6200 ONLY
FRAME ADV
SW10
REC
D1
LN81RCPHL
R4 220
DK4
MA154WA
SW4
DK5
MA154WA
F.F
D3
LN81RCPHL
R3
220
SW3
R8
220
SW8
PLAY
D2
LN81RCPHL
R2 220
SW2
STOP
D8
LN81RCPHL
DK3
MA154WA
DK2
MA154WA
REW
D1
LN81RCPHL
SW1
DK1
MA154WA
EJECT
D7
LN81RCPHL
SW7
R7
220
AUTO OFF
D12
LN49YCPP
R12 220
R13 220
R14 220
R1
220
DOLBY NR
D13
LN31GCPHL
TIME CODE
D14
LN31GCPHL
AG-6200 ONLY

KEY BOARD UNIT
(ESB9462: AG-6200, ESB9466: AG-6100)

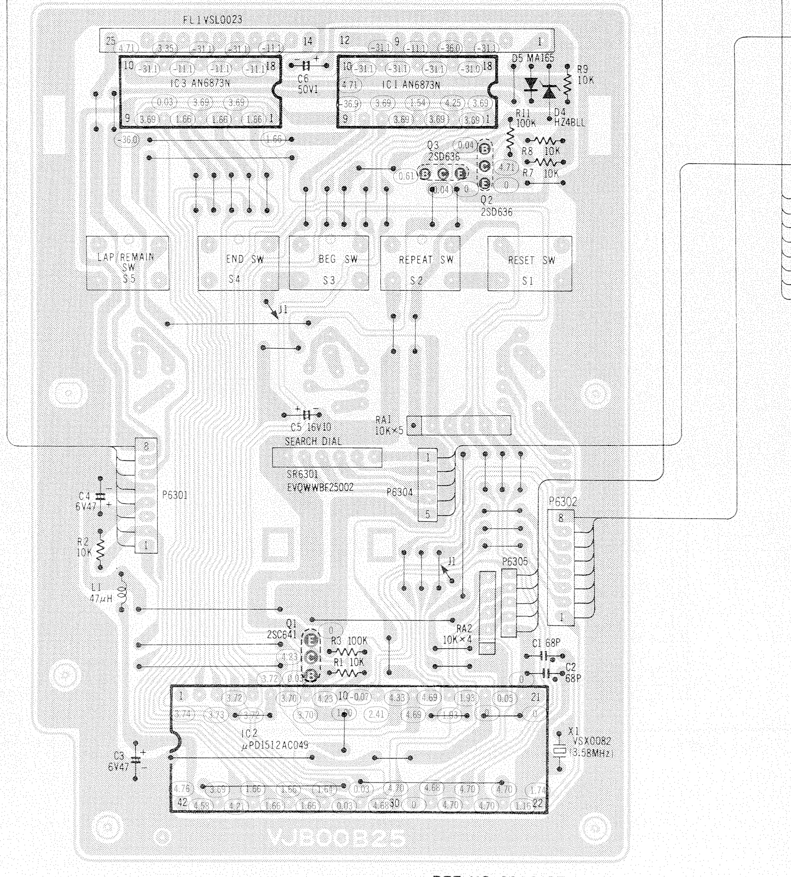
JUMPER TO FRONT CPU P6201

| | |
|---|---|
| 2 | KEY SCAN OUT 1 |
| 3 | KEY SCAN OUT 2 |
| 4 | KEY SCAN OUT 3 |
| 5 | KEY SCAN IN 1 |
| 6 | KEY SCAN IN 2 |
| 7 | KEY SCAN IN 3 |
| 8 | KEY SCAN IN 4 |

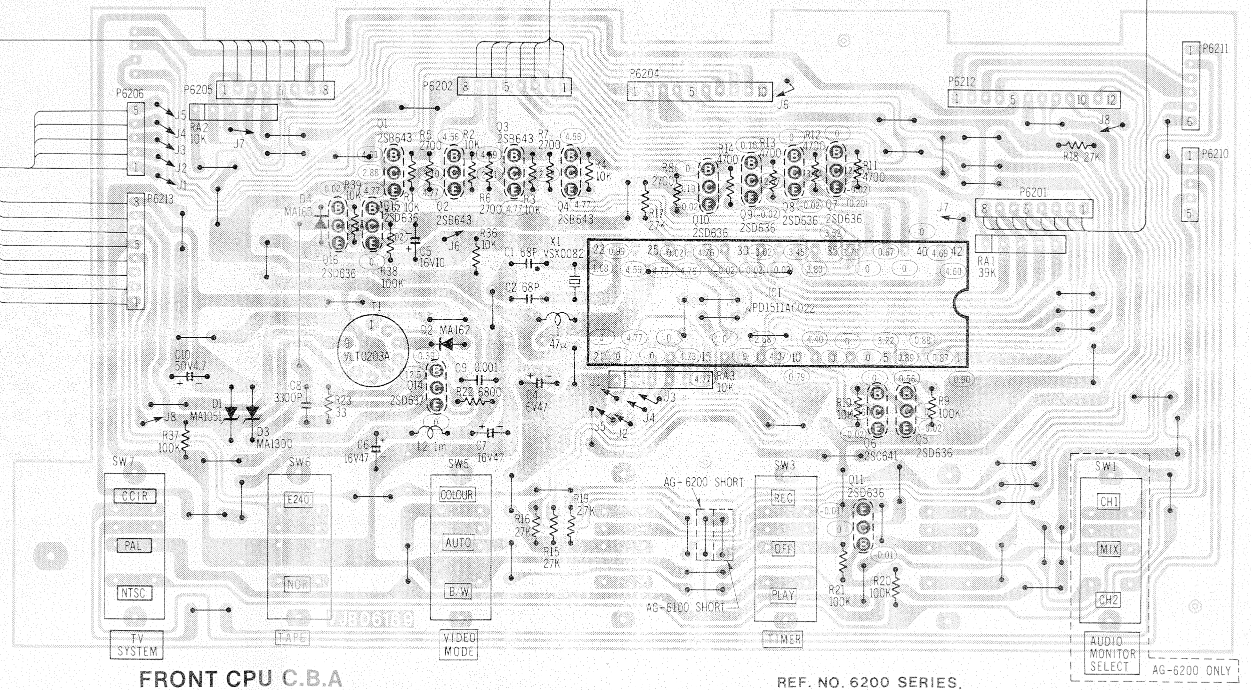
JUMPER TO FRONT CPU P6202

| | |
|---|---|
| 1 | LED ROW SCAN 1 |
| 2 | LED ROW SCAN 2 |
| 3 | LED ROW SCAN 3 |
| 4 | LED ROW SCAN 4 |
| 5 | LED COLUMN SCAN 1 |
| 6 | LED COLUMN SCAN 2 |
| 7 | LED COLUMN SCAN 3 |

COUNTER C.B.A. (VEP00B25A1)


FL1 VSL0023
IC3 AN6873N
IC1 AN6879N
D5 MA165
R9
10K
D4
HZ4BLL
Q3
2SD636
Q2
2SD636
LAP/REMAIN SW S5
END SW S4
BEG SW S3
REPEAT SW S2
RESET SW S1
C5 16V10
SEARCH DIAL
SR6301
EVQWW8F25002
RA1
10K×5
P6301
P6304
P6302
P6305
RA2
10K×4
Q1
2SC641
R3 100K
R1 10K
C1 68P
C2 68P
IC2
µPD1512AC049
X1
VSX0082
(3.58MHz)
C4
6V47
C3
6V47
L1
47µH
VJB00B25

REF. NO. 6300 SERIES.


P6206
P6205
P6202
P6204
P6212
P6211
P6210
P6213
P6201
IC1
µPD1511A6022
X1
VSX0082
T1
VLT0203A
SW7
CCIR
PAL
NTSC
TV SYSTEM
SW6
E240
NOR
TAPE
SW5
COLOUR
AUTO
B.W
VIDEO MODE
AG-6200 SHORT
AG-6100 SHORT
SW3
REC
OFF
PLAY
TIMER
SW1
CH1
MIX
CH2
AUDIO MONITOR SELECT
AG-6200 ONLY
VEP06189

FRONT CPU C.B.A
(VEP06189D: AG-6200, VEP06189E: AG-6100)

REF. NO. 6200 SERIES.

P6211 TO SERVO P2002

| | |
|---|---|
| 1 | —— |
| 2 | —— |
| 3 | —— |
| 4 | —— |
| 5 | PAL·SECAM Ⓗ |
| 6 | SECAM Ⓗ |

P6210 TO CHROMINANCE P8303

| | |
|---|---|
| 1 | PAL Ⓗ |
| 2 | SECAM Ⓗ |
| 3 | NTSC Ⓗ |
| 4 | +12V |
| 5 | COLOUR Ⓗ |

P6212 TO LEFT CONTROL P6543

| | |
|---|---|
| 1 | —— |
| 2 | —— |
| 3 | CH1-N |
| 4 | CH2-N |
| 5 | +12V |
| 6 | +5V |
| 7 | GND |
| 8 | NR OUT-P |
| 9 | —— |
| 10 | REMAIN +5V |
| 11 | —— |
| 12 | —— |

P6201 TO KEY BOARD

| | |
|---|---|
| 1 | —— |
| 2 | KEY SCAN OUT 1 |
| 3 | KEY SCAN OUT 2 |
| 4 | KEY SCAN OUT 3 |
| 5 | KEY SCAN IN 1 |
| 6 | KEY SCAN IN 2 |
| 7 | KEY SCAN IN 3 |
| 8 | KEY SCAN IN 4 |

P6206 TO COUNTER P6304

| | |
|---|---|
| 1 | SEARCH 1-N |
| 2 | SEARCH 2-N |
| 3 | SEARCH 3-N |
| 4 | SEARCH 4-N |
| 5 | —— |

P6202 TO KEY BOARD

| | |
|---|---|
| 1 | LED ROW SCAN 1 |
| 2 | LED ROW SCAN 2 |
| 3 | LED ROW SCAN 3 |
| 4 | LED ROW SCAN 4 |
| 5 | LED COLUMN SCAN 1 |
| 6 | LED COLUMN SCAN 2 |
| 7 | LED COLUMN SCAN 3 |
| 8 | —— |

P6205 TO COUNTER P6302

| | |
|---|---|
| 1 | IRQ |
| 2 | ADDRESS |
| 3 | SERIAL CLOCK |
| 4 | SERIAL DATA |
| 5 | CTL PULSE |
| 6 | SUPPLY HALL IC |
| 7 | TAKEUP HALL IC |
| 8 | —— |

P6213 TO COUNTER P6301

| | |
|---|---|
| 1 | 25Hz – P |
| 2 | E240 – N |
| 3 | —— |
| 4 | REMAIN +5V |
| 5 | GND |
| 6 | FILAMENT |
| 7 | FILAMENT |
| 8 | –30V |

P6204 TO SYSTEM CTL P6005

| | |
|---|---|
| 1 | IRQ |
| 2 | ADDRESS |
| 3 | GND |
| 4 | SERIAL CLOCK |
| 5 | SERIAL DATA |
| 6 | POWER RESET |
| 7 | CTL PULSE |
| 8 | SUPPLY HALL IC |
| 9 | TAKE UP HALL IC |
| 10 | —— |

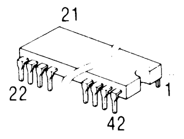
The DC voltages in this diagram are measured in PLAY and RECORD mode.

# FRONT CPU, COUNTER & KEY BOARD UNIT, MODE SW SCHEMATIC DIAGRAM

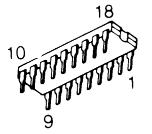
| Counter C.B.A. (VEP00B25A1) | |
|---|---|
| Q6301 | A-2 |
| Q6302 | C-2 |
| Q6003 | C-2 |
| IC6301 | C-2 |
| IC6302 | A-2 |
| IC6303 | C-1 |

| Front CPU C.B.A. (VEP06189D,E) | |
|---|---|
| Q6201 | C-5 |
| Q6202 | C-5 |
| Q6203 | C-5 |
| Q6204 | C-5 |
| Q6205 | B-7 |
| Q6206 | B-7 |
| Q6207 | C-6 |
| Q6208 | C-6 |
| Q6209 | C-6 |
| Q6210 | C-6 |
| Q6211 | B-6 |
| Q6214 | B-5 |
| Q6215 | C-5 |
| Q6216 | C-5 |
| IC6201 | C-6 |

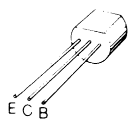
**Front C.P.U C.B.A. Counter C.B.A. ICs & Transistors Inforamtion**



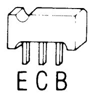
μPD1511AC
μPD1512AC



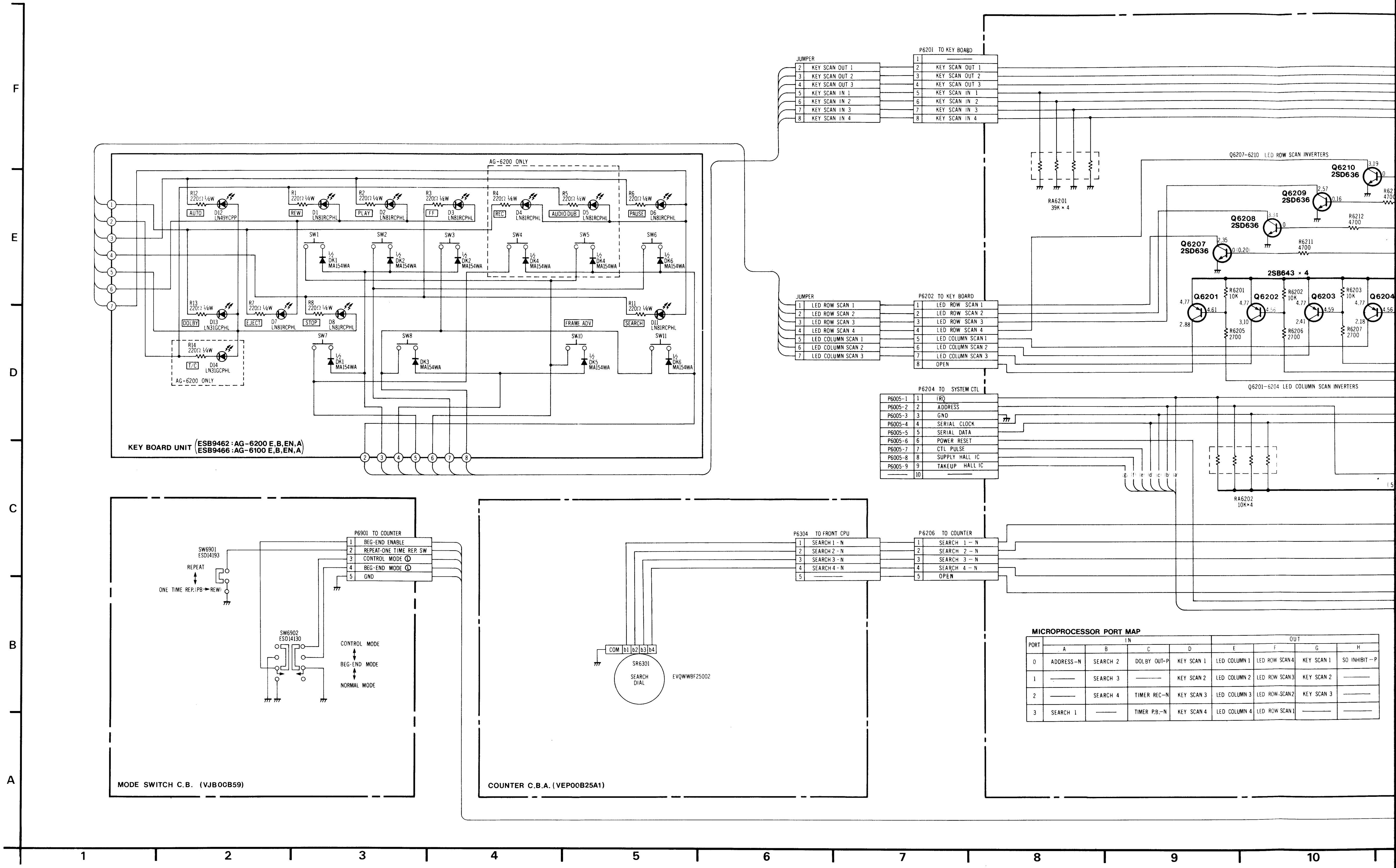
AN6873N



2SC641



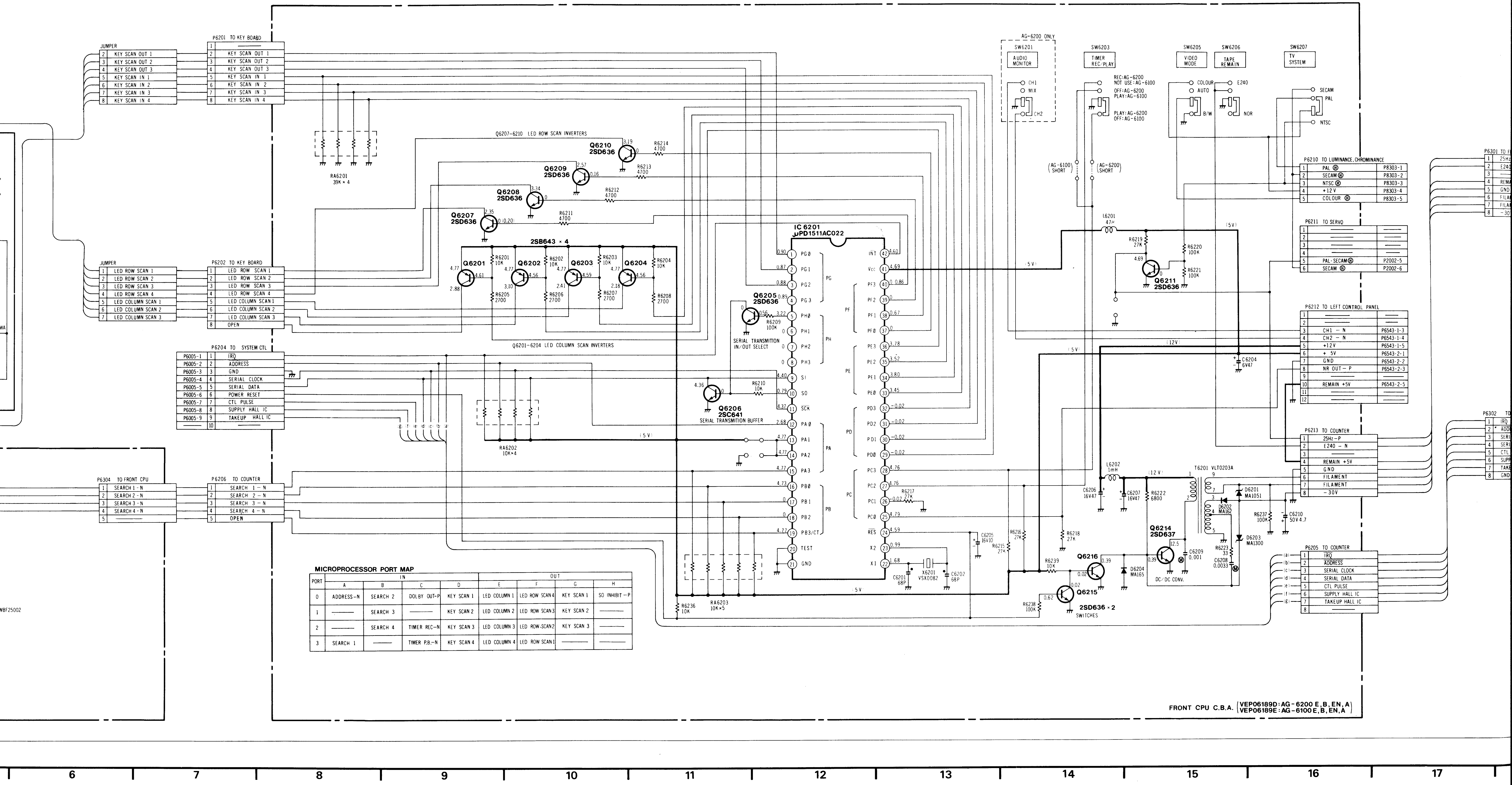
2SB643
2SD636
2SD639


P6201 TO KEY BOARD
JUMPER
KEY SCAN OUT 1
KEY SCAN OUT 2
KEY SCAN OUT 3
KEY SCAN IN 1
KEY SCAN IN 2
KEY SCAN IN 3
KEY SCAN IN 4
RA6201 39K × 4
Q6207~6210 LED ROW SCAN INVERTERS
Q6210 2SD636
Q6209 2SD636
Q6208 2SD636
Q6207 2SD636
2SB643 × 4
Q6201
Q6202
Q6203
Q6204
Q6201~6204 LED COLUMN SCAN INVERTERS
P6202 TO KEY BOARD
LED ROW SCAN 1
LED ROW SCAN 2
LED ROW SCAN 3
LED ROW SCAN 4
LED COLUMN SCAN 1
LED COLUMN SCAN 2
LED COLUMN SCAN 3
OPEN
P6204 TO SYSTEM CTL
IRQ
ADDRESS
GND
SERIAL CLOCK
SERIAL DATA
POWER RESET
CTL PULSE
SUPPLY HALL IC
TAKEUP HALL IC
RA6202 10K×4
AG-6200 ONLY
AUTO
REW
PLAY
FF
REC
AUDIO DUB
PAUSE
DOLBY
EJECT
STOP
FRAME ADV
SEARCH
T/C
KEY BOARD UNIT (ESB9462 : AG-6200 E,B,EN,A) (ESB9466 : AG-6100 E,B,EN,A)
P6901 TO COUNTER
BEG-END ENABLE
REPEAT-ONE TIME REP. SW
CONTROL MODE ①
BEG-END MODE ①
GND
SW6901 ESD14193
REPEAT
ONE TIME REP. (PB→REW)
SW6902 ESD14130
CONTROL MODE
BEG-END MODE
NORMAL MODE
MODE SWITCH C.B. (VJB00B59)
P6304 TO FRONT CPU
SEARCH 1 - N
SEARCH 2 - N
SEARCH 3 - N
SEARCH 4 - N
P6206 TO COUNTER
OPEN
SR6301 SEARCH DIAL
EVQWWBF25002
COUNTER C.B.A. (VEP00B25A1)
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

**MICROPROCESSOR PORT MAP**

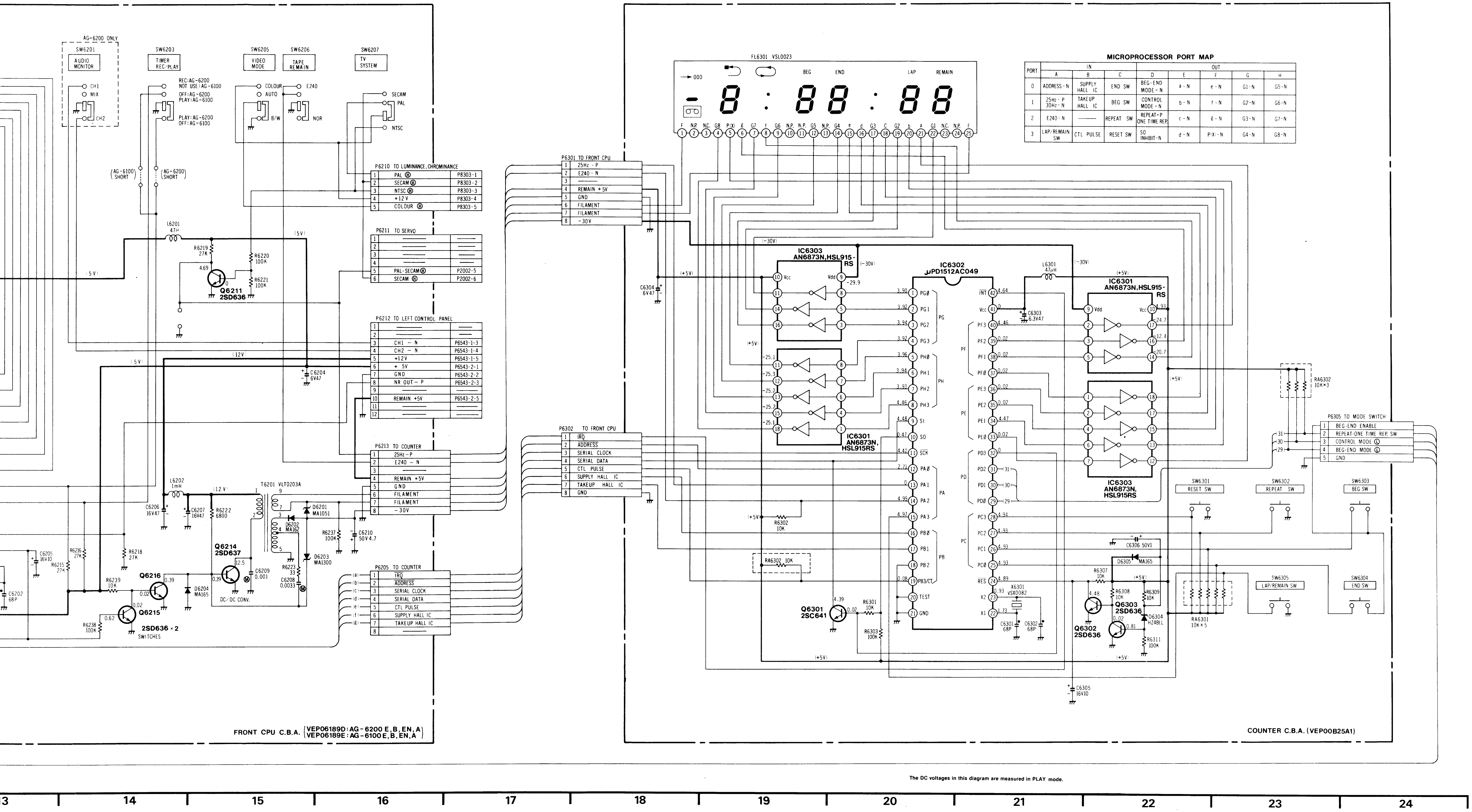
| PORT | IN | | | | OUT | | | |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H |
| 0 | ADDRESS-N | SEARCH 2 | DOLBY OUT-P | KEY SCAN 1 | LED COLUMN 1 | LED ROW SCAN 4 | KEY SCAN 1 | SO INHIBIT --P |
| 1 | ——— | SEARCH 3 | ——— | KEY SCAN 2 | LED COLUMN 2 | LED ROW SCAN 3 | KEY SCAN 2 | ——— |
| 2 | ——— | SEARCH 4 | TIMER REC-N | KEY SCAN 3 | LED COLUMN 3 | LED ROW-SCAN 2 | KEY SCAN 3 | ——— |
| 3 | SEARCH 1 | ——— | TIMER P.B.-N | KEY SCAN 4 | LED COLUMN 4 | LED ROW SCAN 1 | ——— | ——— |

# DIAGRAM


JUMPER
KEY SCAN OUT 1
KEY SCAN OUT 2
KEY SCAN OUT 3
KEY SCAN IN 1
KEY SCAN IN 2
KEY SCAN IN 3
KEY SCAN IN 4
P6201 TO KEY BOARD
RA6201 39K × 4
Q6207-6210 LED ROW SCAN INVERTERS
Q6210 2SD636
Q6209 2SD636
Q6208 2SD636
Q6207 2SD636
R6214 4700
R6213 4700
R6212 4700
R6211 4700
2SB643 × 4
Q6201
Q6202
Q6203
Q6204
R6201 10K
R6202 10K
R6203 10K
R6204 10K
R6205 2700
R6206 2700
R6207 2700
R6208 2700
Q6201-6204 LED COLUMN SCAN INVERTERS
LED ROW SCAN 1
LED ROW SCAN 2
LED ROW SCAN 3
LED ROW SCAN 4
LED COLUMN SCAN 1
LED COLUMN SCAN 2
LED COLUMN SCAN 3
OPEN
P6202 TO KEY BOARD
P6204 TO SYSTEM CTL
P6005-1 1 IRQ
P6005-2 2 ADDRESS
P6005-3 3 GND
P6005-4 4 SERIAL CLOCK
P6005-5 5 SERIAL DATA
P6005-6 6 POWER RESET
P6005-7 7 CTL PULSE
P6005-8 8 SUPPLY HALL IC
P6005-9 9 TAKEUP HALL IC
RA6202 10K×4
P6304 TO FRONT CPU
P6206 TO COUNTER
SEARCH 1 - N
SEARCH 2 - N
SEARCH 3 - N
SEARCH 4 - N
OPEN
Q6205 2SD636
R6209 100K
SERIAL TRANSMITION IN/OUT SELECT
Q6206 2SC641
R6210 10K
SERIAL TRANSMITION BUFFER
IC6201 μPD1511AC022
PG0 PG1 PG2 PG3 PH0 PH1 PH2 PH3 SI SO SCK PA0 PA1 PA2 PA3 PB0 PB1 PB2 PB3/CT TEST GND
INT Vcc PF3 PF2 PF1 PF0 PE3 PE2 PE1 PE0 PD3 PD2 PD1 PD0 PC3 PC2 PC1 PC0 RES X2 X1
R6217 27K
C6205 16V10
R6215 27K
R6216 27K
R6218 27K
X6201 VSX0082
C6201 68P
C6202 68P
RA6203 10K×5
R6236 10K
(5V)
(12V)
AG-6200 ONLY
SW6201 AUDIO MONITOR
CH1
MIX
CH2
SW6203 TIMER REC/PLAY
REC:AG-6200 NOT USE:AG-6100
OFF:AG-6200 PLAY:AG-6100
PLAY:AG-6200 OFF:AG-6100
(AG-6100 SHORT)
(AG-6200 SHORT)
SW6205 VIDEO MODE
COLOUR
AUTO
B/W
SW6206 TAPE REMAIN
E240
NOR
SW6207 TV SYSTEM
SECAM
PAL
NTSC
L6201 47μ
R6219 27K
R6220 100K
R6221 100K
Q6211 2SD636
C6204 6V47
P6210 TO LUMINANCE, CHROMINANCE
1 PAL Ⓗ P8303-1
2 SECAM Ⓗ P8303-2
3 NTSC Ⓗ P8303-3
4 +12V P8303-4
5 COLOUR Ⓗ P8303-5
P6211 TO SERVO
5 PAL·SECAM Ⓗ P2002-5
6 SECAM Ⓗ P2002-6
P6212 TO LEFT CONTROL PANEL
3 CH1 - N P6543-1-3
4 CH2 - N P6543-1-4
5 +12V P6543-1-5
6 + 5V P6543-2-1
7 GND P6543-2-2
8 NR OUT - P P6543-2-3
10 REMAIN +5V P6543-2-5
P6213 TO COUNTER
1 25Hz - P
2 E240 - N
4 REMAIN +5V
5 GND
6 FILAMENT
7 FILAMENT
8 - 30V
P6301 TO F
25Hz
E240
REMA
GND
FILAM
FILAM
-30
P6302 TO
IRQ
ADDR
SERI
SERI
CTL
SUPP
TAKE
GND
L6202 1mH
C6206 16V47
C6207 16V47
R6222 6800
T6201 VLT0203A
D6201 MA1051
D6202 MA162
D6203 MA1300
D6204 MA165
R6237 100K
C6210 50V 4.7
R6223 33
C6208 0.0033
C6209 0.001
Q6214 2SD637
DC/DC CONV.
Q6216
Q6215
2SD636 × 2 SWITCHES
R6239 10K
R6238 100K
P6205 TO COUNTER
1 IRQ
2 ADDRESS
3 SERIAL CLOCK
4 SERIAL DATA
5 CTL PULSE
6 SUPPLY HALL IC
7 TAKEUP HALL IC
FRONT CPU C.B.A. (VEP06189D: AG-6200 E, B, EN, A / VEP06189E: AG-6100 E, B, EN, A)
WBF25002
6 7 8 9 10 11 12 13 14 15 16 17

**MICROPROCESSOR PORT MAP**

| PORT | IN | | | | OUT | | | |
|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H |
| 0 | ADDRESS-N | SEARCH 2 | DOLBY OUT-P | KEY SCAN 1 | LED COLUMN 1 | LED ROW SCAN 4 | KEY SCAN 1 | SO INHIBIT -P |
| 1 | ——— | SEARCH 3 | ——— | KEY SCAN 2 | LED COLUMN 2 | LED ROW SCAN 3 | KEY SCAN 2 | ——— |
| 2 | ——— | SEARCH 4 | TIMER REC-N | KEY SCAN 3 | LED COLUMN 3 | LED ROW-SCAN 2 | KEY SCAN 3 | ——— |
| 3 | SEARCH 1 | ——— | TIMER P.B.-N | KEY SCAN 4 | LED COLUMN 4 | LED ROW SCAN 1 | ——— | ——— |


AG-6200 ONLY
SW6201 AUDIO MONITOR
CH1
MIX
CH2
SW6203 TIMER REC/PLAY
REC: AG-6200
NOT USE: AG-6100
OFF: AG-6200
PLAY: AG-6100
PLAY: AG-6200
OFF: AG-6100
SW6205 VIDEO MODE
COLOUR
AUTO
B/W
SW6206 TAPE REMAIN
E240
NOR
SW6207 TV SYSTEM
SECAM
PAL
NTSC
(AG-6100) SHORT
(AG-6200) SHORT
P6210 TO LUMINANCE, CHROMINANCE
1 PAL Ⓗ P8303-1
2 SECAM Ⓗ P8303-2
3 NTSC Ⓗ P8303-3
4 +12V P8303-4
5 COLOUR Ⓗ P8303-5
P6211 TO SERVO
5 PAL·SECAM Ⓗ P2002-5
6 SECAM Ⓗ P2002-6
L6201 47μ
R6219 27K
R6220 100K
R6221 100K
Q6211 2SD636
(5V)
P6212 TO LEFT CONTROL PANEL
3 CH1 – N P6543-1-3
4 CH2 – N P6543-1-4
5 +12V P6543-1-5
6 + 5V P6543-2-1
7 GND P6543-2-2
8 NR OUT – P P6543-2-3
10 REMAIN +5V P6543-2-5
(12V)
C6204 6V47
P6213 TO COUNTER
1 25Hz – P
2 E240 – N
4 REMAIN +5V
5 GND
6 FILAMENT
7 FILAMENT
8 – 30V
L6202 1mH
T6201 VLT0203A
D6201 MA1051
D6202 MA162
D6203 MA1300
C6206 16V47
C6207 16V47
R6222 6800
R6237 100K
C6210 50V 4.7
Q6214 2SD637
DC/DC CONV.
C6209 0.001
R6223 33
C6208 0.0033
C6205 16V10
R6215 27K
R6216 27K
R6218 27K
R6239 10K
Q6216
Q6215
D6204 MA165
R6238 100K
2SD636 × 2
SWITCHES
C6202 68P
P6205 TO COUNTER
1 IRQ
2 ADDRESS
3 SERIAL CLOCK
4 SERIAL DATA
5 CTL PULSE
6 SUPPLY HALL IC
7 TAKEUP HALL IC
FRONT CPU C.B.A. (VEP06189D: AG-6200 E, B, EN, A / VEP06189E: AG-6100 E, B, EN, A)
FL6301 VSL0023
BEG
END
LAP
REMAIN
P6301 TO FRONT CPU
1 25Hz – P
2 E240 – N
4 REMAIN +5V
5 GND
6 FILAMENT
7 FILAMENT
8 – 30V
C6304 6V47
P6302 TO FRONT CPU
1 IRQ
2 ADDRESS
3 SERIAL CLOCK
4 SERIAL DATA
5 CTL PULSE
6 SUPPLY HALL IC
7 TAKEUP HALL IC
8 GND
IC6303 AN6873N, HSL915-RS
IC6302 μPD1512AC049
IC6301 AN6873N, HSL915-RS
IC6301 AN6873N, HSL915RS
IC6303 AN6873N, HSL915RS
L6301 47μH
C6303 6.3V47
R6302 10K
RA6302 10K
Q6301 2SC641
R6301 10K
R6303 100K
X6301 VSX0082
C6301 68P
C6302 68P
C6305 16V10
C6306 50V1
D6305 MA165
R6307 10K
R6308 10K
R6309 10K
Q6303 2SD636
Q6302 2SD636
D6304 HZ4BLL
R6311 100K
RA6302 10K×3
P6305 TO MODE SWITCH
1 BEG·END ENABLE
2 REPEAT·ONE TIME REP. SW
3 CONTROL MODE Ⓛ
4 BEG·END MODE Ⓛ
5 GND
SW6301 RESET SW
SW6302 REPEAT SW
SW6303 BEG SW
SW6305 LAP/REMAIN SW
SW6304 END SW
RA6301 10K×5
COUNTER C.B.A. (VEP00B25A1)
3
14
15
16
17
18
19
20
21
22
23
24

**MICROPROCESSOR PORT MAP**

| PORT | IN |  |  | OUT |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
|  | A | B | C | D | E | F | G | H |
| 0 | ADDRESS - N | SUPPLY HALL IC | END SW | BEG·END MODE - N | a - N | e - N | G1 - N | G5 - N |
| 1 | 25Hz - P<br>30Hz - N | TAKEUP HALL IC | BEG SW | CONTROL MODE - N | b - N | f - N | G2 - N | G6 - N |
| 2 | E240 - N | ——— | REPEAT SW | REPEAT - P<br>ONE TIME REP. | c - N | g - N | G3 - N | G7 - N |
| 3 | LAP/REMAIN SW | CTL PULSE | RESET SW | SO INHIBIT - N | d - N | P(X) - N | G4 - N | G8 - N |

The DC voltages in this diagram are measured in PLAY mode.

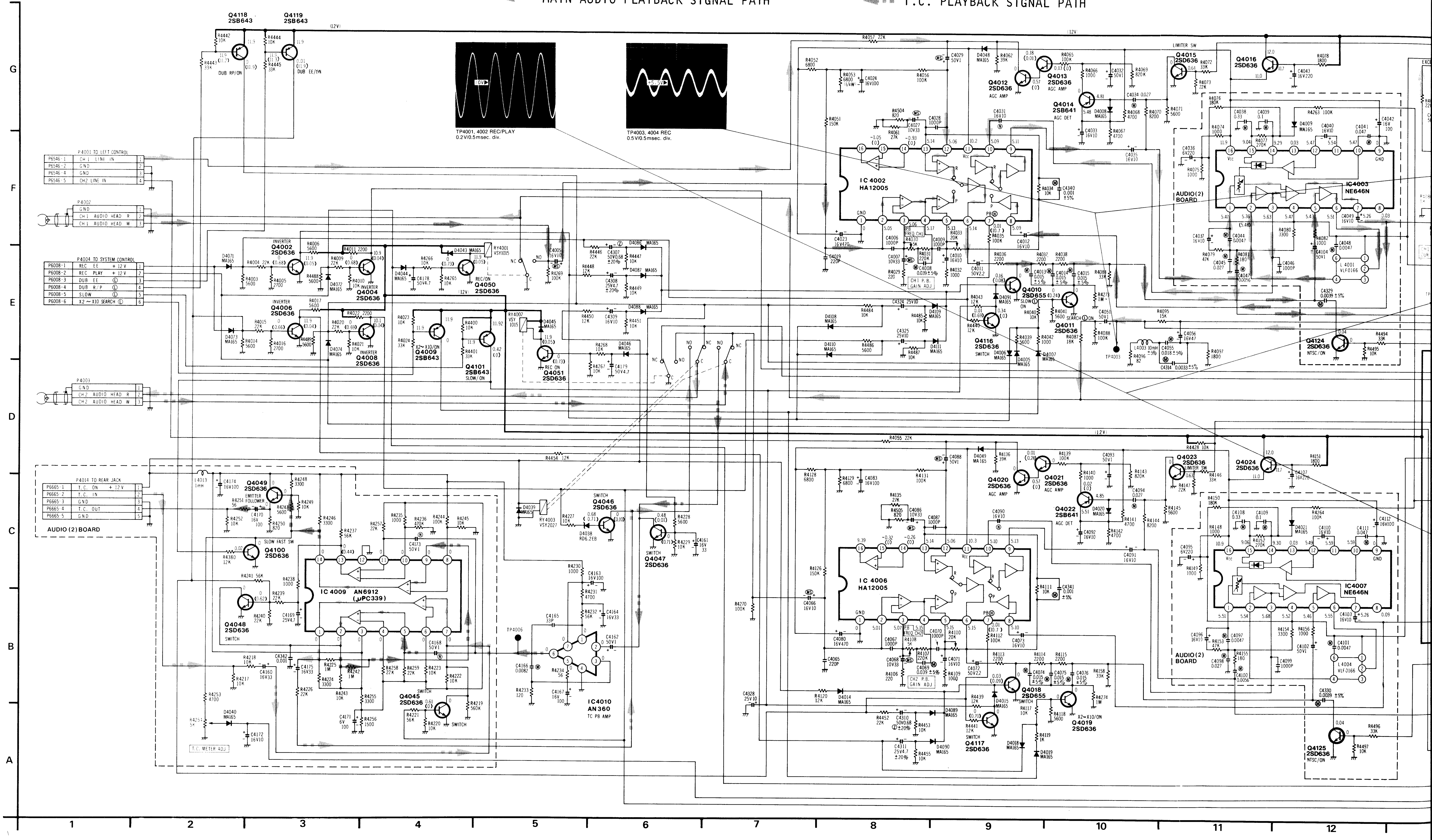
# AUDIO SCHEMAITC DIAGRAM (AG-6200)

MAIN AUDIO RECORDING SIGNAL PATH

MAIN AUDIO PLAYBACK SIGNAL PATH

T.C. RECORDING SIGNAL PATH

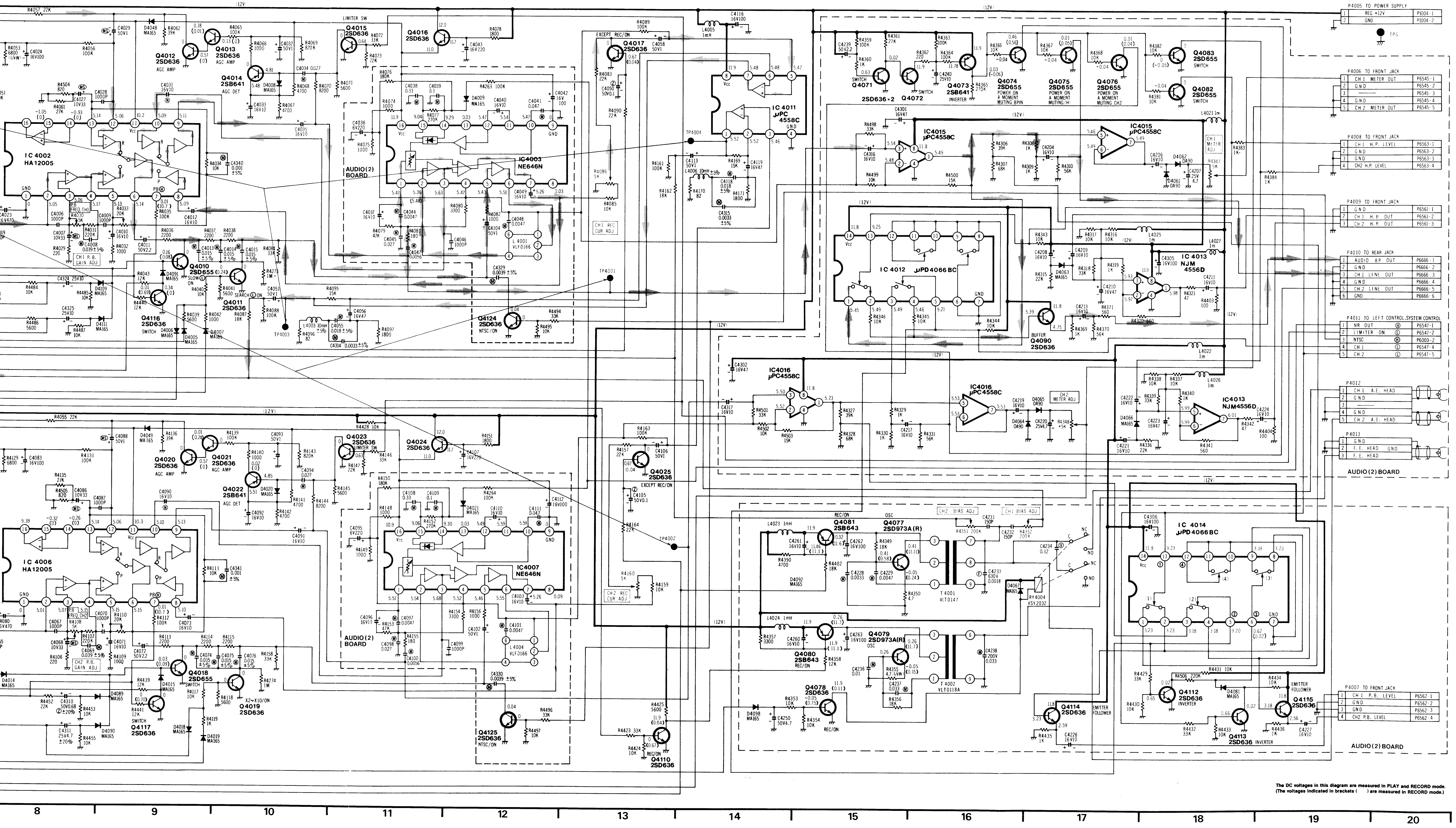
T.C. PLAYBACK SIGNAL PATH



TP4001, 4002 REC/PLAY 0.2V/0.5msec. div.
TP4003, 4004 REC 0.5V/0.5msec. div.
P4001 TO LEFT CONTROL
P6546-1 CH 1 LINE IN
P6546-2 GND
P6546-4 GND
P6546-5 CH2 LINE IN
P4002
GND
CH 1 AUDIO HEAD R
CH 1 AUDIO HEAD W
P4004 TO SYSTEM CONTROL
P6008-1 REC EE +12V
P6008-2 REC PLAY +12V
P6008-3 DUB EE
P6008-4 DUB R/P
P6008-5 SLOW
P6008-6 X2 ~ X10 SEARCH
P4003
GND
CH2 AUDIO HEAD R
CH2 AUDIO HEAD W
P4014 TO REAR JACK
P6665-1 T.C. ON +12V
P6665-2 T.C. IN
P6665-3 GND
P6665-4 T.C. OUT
P6665-5 GND
AUDIO (2) BOARD
Q4118 2SB643
Q4119 2SB643
DUB RP/ON
DUB EE/ON
(12V)
Q4002 2SD636 INVERTER
Q4004 2SD636 INVERTER
Q4006 2SD636 INVERTER
Q4008 2SD636 INVERTER
Q4050 2SD636 REC/ON
Q4009 2SB643 X2~X10/ON
Q4101 2SB643 SLOW/ON
Q4051 2SD636 REC ON
RY4001 VSY1015
RY4002 VSY1015
RY4003 VSY2027
IC 4002 HA12005
IC 4003 NE646N
IC 4006 HA12005
IC 4007 NE646N
IC 4009 AN6912 (μPC339)
IC4010 AN360 TC PB AMP
Q4012 2SD636 AGC AMP
Q4013 2SD636 AGC AMP
Q4014 2SB641 AGC DET
Q4015 2SD636 LIMITER SW
Q4016 2SD636
Q4010 2SD655
Q4011 2SD636 SEARCH
Q4116 2SD636 SWITCH
Q4124 2SD636 NTSC/ON
CH1 P.B. GAIN ADJ
TP4003
L4001 VLF0166
Q4049 2SD636 EMITTER FOLLOWER
Q4100 2SD636 SLOW FAST SW
Q4048 2SD636 SWITCH
Q4045 2SD636 SWITCH
Q4046 2SD636 SWITCH
Q4047 2SD636 SWITCH
TP4006
T.C. METER ADJ
Q4020 2SD636 AGC AMP
Q4021 2SD636 AGC AMP
Q4022 2SB641 AGC DET
Q4023 2SD636 LIMITER SW
Q4024 2SD636
Q4018 2SD655 SWITCH
Q4019 2SD636 X2~X10/ON
Q4117 2SD636 SWITCH
Q4125 2SD636 NTSC/ON
CH2 P.B. GAIN ADJ
L4004 VLF0166
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

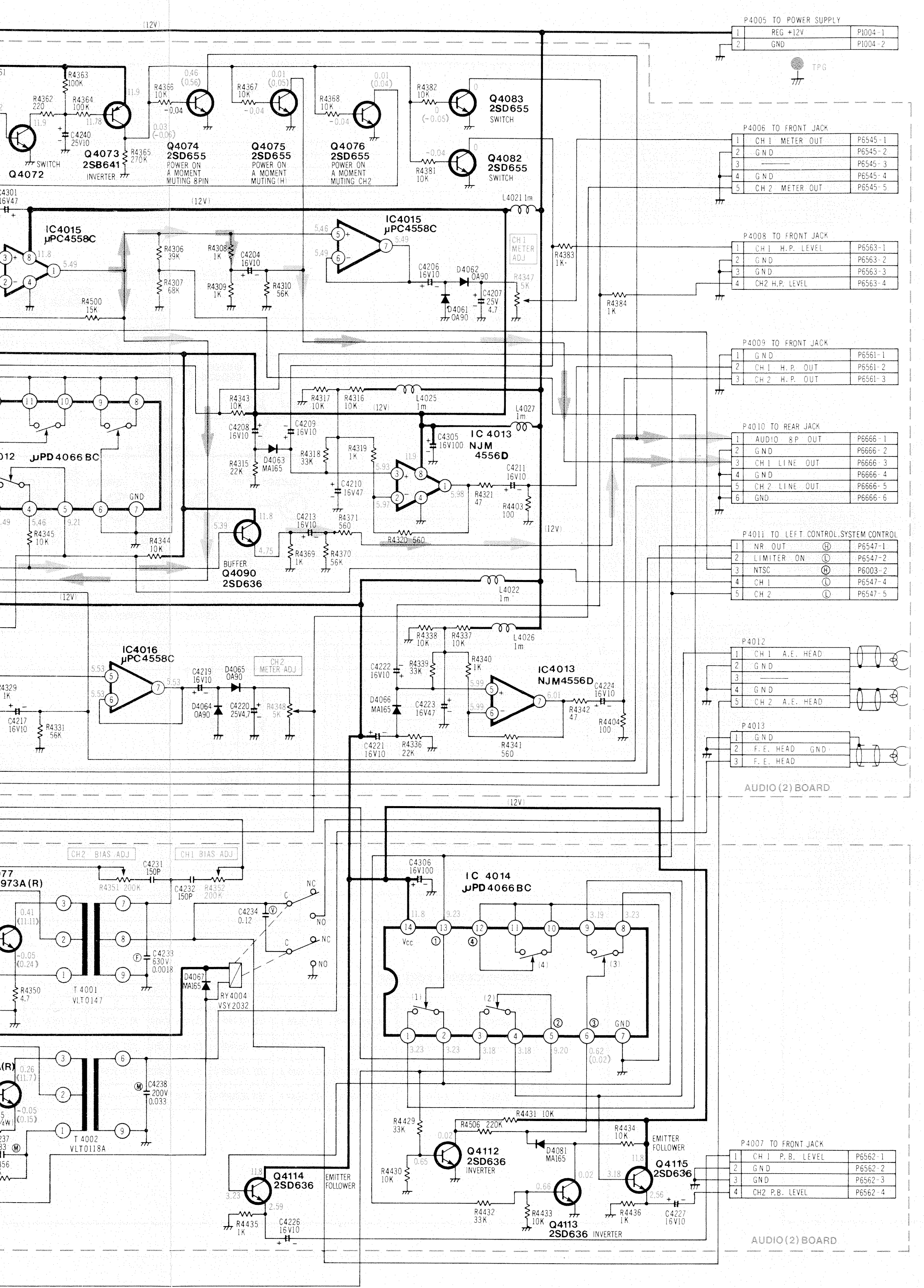
T.C. RECORDING SIGNAL PATH

T.C. PLAYBACK SIGNAL PATH


IC 4002 HA12005
IC 4003 NE646N
IC 4006 HA12005
IC 4007 NE646N
IC 4011 μPC 4558C
IC4015 μPC4558C
IC 4012 μPD 4066 BC
IC 4013 NJM 4556D
IC4016 μPC4558C
IC 4014 μPD 4066 BC
AUDIO (2) BOARD
CH1 P.B. GAIN ADJ
CH2 P.B. GAIN ADJ
CH1 REC CUR ADJ
CH2 REC CUR ADJ
CH1 METER ADJ
CH2 METER ADJ
CH2 BIAS ADJ
CH1 BIAS ADJ
LIMITER SW
EXCEPT REC/ON
AGC AMP
AGC DET
NTSC/ON
SWITCH
SEARCH ON
SLOW ON
X2~X10/ON
REC/ON
OSC
BUFFER
INVERTER
EMITTER FOLLOWER
POWER ON A MOMENT MUTING 8PIN
POWER ON A MOMENT MUTING (H)
POWER ON A MOMENT MUTING CH2
T 4001 VLT0147
T 4002 VLT0118A
RY4004 VSY2032
TP4001
TP4002
TP4003
TP4004
P4005 TO POWER SUPPLY
1 REG +12V P1004-1
2 GND P1004-2
P4006 TO FRONT JACK
1 CH1 METER OUT P6545-1
2 GND P6545-2
3 — P6545-3
4 GND P6545-4
5 CH2 METER OUT P6545-5
P4008 TO FRONT JACK
1 CH1 H.P. LEVEL P6563-1
2 GND P6563-2
3 GND P6563-3
4 CH2 H.P. LEVEL P6563-4
P4009 TO FRONT JACK
1 GND P6561-1
2 CH1 H.P. OUT P6561-2
3 CH2 H.P. OUT P6561-3
P4010 TO REAR JACK
1 AUDIO 8P OUT P6666-1
2 GND P6666-2
3 CH1 LINE OUT P6666-3
4 GND P6666-4
5 CH2 LINE OUT P6666-5
6 GND P6666-6
P4011 TO LEFT CONTROL,SYSTEM CONTROL
1 NR OUT P6547-1
2 LIMITER ON P6547-2
3 NTSC P6003-2
4 CH1 P6547-4
5 CH2 P6547-5
P4012
1 CH1 A.E. HEAD
2 GND
3 —
4 GND
5 CH2 A.E. HEAD
P4013
1 GND
2 F.E. HEAD GND
3 F.E. HEAD
P4007 TO FRONT JACK
1 CH1 P.B. LEVEL P6562-1
2 GND P6562-2
3 GND P6562-3
4 CH2 P.B. LEVEL P6562-4
8
9
10
11
12
13
14
15
16
17
18
19
20

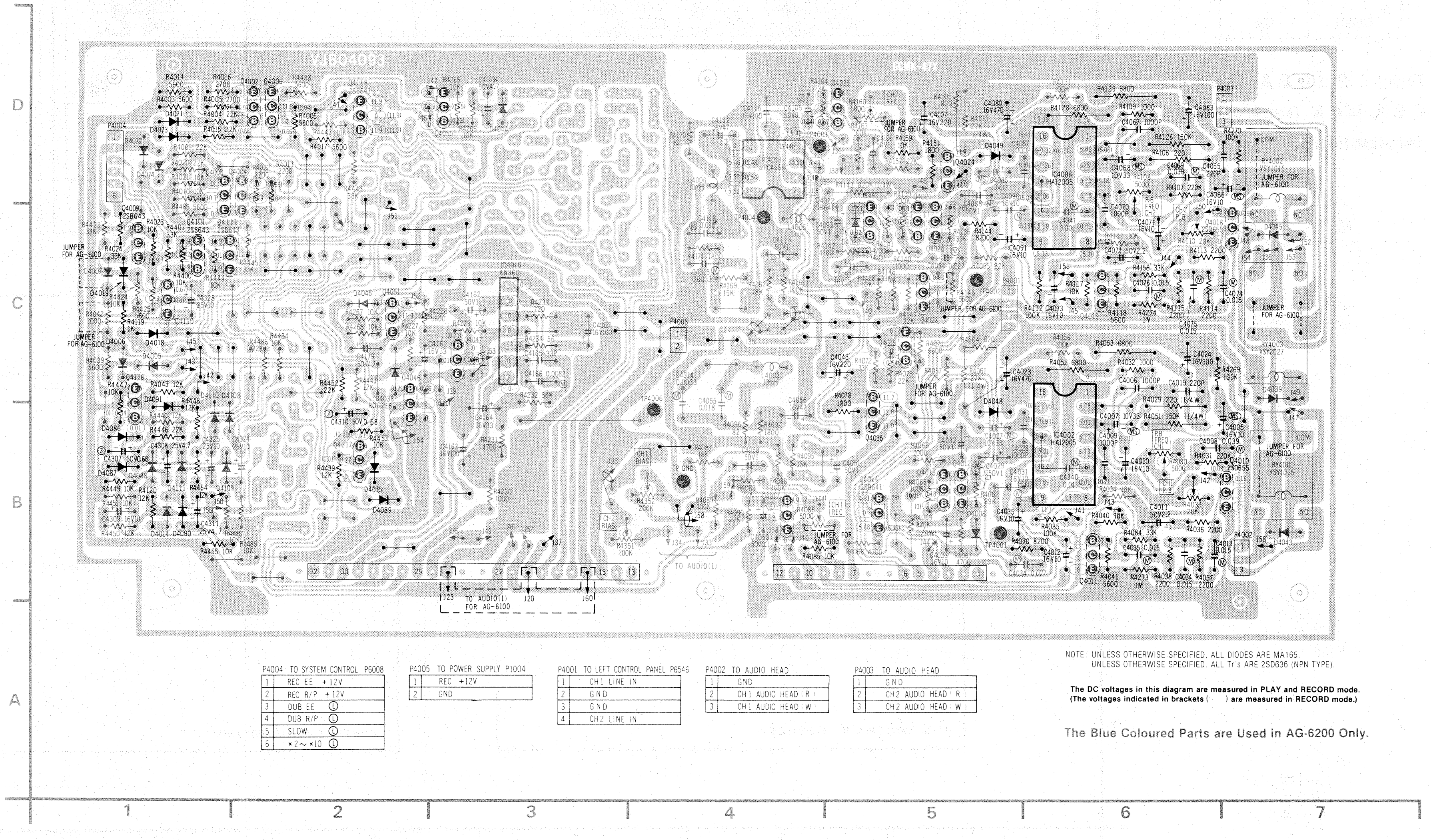
The DC voltages in this diagram are measured in PLAY and RECORD mode.
(The voltages indicated in brackets ( ) are measured in RECORD mode.)

# AUDIO (1) C.B.A. (VEP04093A: AG-6200/VEP04093B: AG-6100)


P4005 TO POWER SUPPLY
REG +12V P1004-1
GND P1004-2
P4006 TO FRONT JACK
CH1 METER OUT
CH2 METER OUT
P4008 TO FRONT JACK
CH1 H.P. LEVEL
CH2 H.P. LEVEL
P4009 TO FRONT JACK
CH1 H.P. OUT
CH2 H.P. OUT
P4010 TO REAR JACK
AUDIO 8P OUT
CH1 LINE OUT
CH2 LINE OUT
P4011 TO LEFT CONTROL SYSTEM CONTROL
NR OUT
LIMITER ON
NTSC
P4012
CH1 A.E. HEAD
CH2 A.E. HEAD
P4013
F.E. HEAD GND
F.E. HEAD
AUDIO (2) BOARD
Q4083 2SD655 SWITCH
Q4082 2SD655 SWITCH
Q4073 2SB641 INVERTER
Q4074 2SD655 POWER ON A MOMENT MUTING 8PIN
Q4075 2SD655 POWER ON A MOMENT MUTING (H)
Q4076 2SD655 POWER ON A MOMENT MUTING CH2
Q4072
IC4015 μPC4558C
IC4013 NJM 4556D
μPD4066BC
Q4090 2SD636 BUFFER
IC4016 μPC4558C
IC4013 NJM4556D
CH2 BIAS ADJ
CH1 BIAS ADJ
T4001 VLT0147
T4002 VLT0118A
RY4004 VSY2032
IC 4014 μPD4066BC
Q4114 2SD636 EMITTER FOLLOWER
Q4112 2SD636 INVERTER
Q4113 2SD636 INVERTER
Q4115 2SD636 EMITTER FOLLOWER
P4007 TO FRONT JACK
CH1 P.B. LEVEL
CH2 P.B. LEVEL
AUDIO (2) BOARD
16
17
18
19
20

The DC voltages in this diagram are measured in PLAY and RECORD mode.
(The voltages indicated in brackets ( ) are measured in RECORD mode.)

| Auido (1) C.B.A. (VEP04093A,B) | | | |
|---|---|---|---|
| Q4002 | D-2 | Q4023 | C-5 |
| Q4004 | C-1 | Q4024 | D-5 |
| Q4006 | D-2 | Q4025 | D-5 |
| Q4008 | C-1 | Q4046 | B-2 |
| Q4009 | C-1 | Q4047 | C-3 |
| Q4010 | B-7 | Q4050 | D-3 |
| Q4011 | B-6 | Q4051 | C-2 |
| Q4012 | B-5 | Q4101 | C-1 |
| Q4013 | B-5 | Q4110 | C-1 |
| Q4014 | B-5 | Q4116 | B-1 |
| Q4015 | C-5 | Q4117 | B-2 |
| Q4016 | B-5 | Q4118 | D-2 |
| Q4017 | B-4 | Q4119 | C-1 |
| Q4018 | C-7 | | |
| Q4019 | C-6 | IC4002 | B-6 |
| Q4020 | C-5 | IC4006 | C-6 |
| Q4021 | C-5 | IC4010 | C-3 |
| Q4022 | C-5 | IC4011 | D-4 |


VJB04093
GCMK-47X
D
C
B
A
1
2
3
4
5
6
7
JUMPER FOR AG-6100
JUMPER FOR AG-6200
TO AUDIO(1) FOR AG-6100
J23
J20
J60
CH1 BIAS
CH2 BIAS
TP GND
TPG
P4001
P4002
P4003
P4004
P4005
IC4006
IC4002
IC4010
IC4011
Q4011
R4041 5600
R4273 1M
R4038 2200
C4014 0.015
R4037 2200

P4004 TO SYSTEM CONTROL P6008

| | |
|---|---|
| 1 | REC EE +12V |
| 2 | REC R/P +12V |
| 3 | DUB EE Ⓛ |
| 4 | DUB R/P Ⓛ |
| 5 | SLOW Ⓛ |
| 6 | ×2～×10 Ⓛ |

P4005 TO POWER SUPPLY P1004

| | |
|---|---|
| 1 | REC +12V |
| 2 | GND |

P4001 TO LEFT CONTROL PANEL P6546

| | |
|---|---|
| 1 | CH1 LINE IN |
| 2 | GND |
| 3 | GND |
| 4 | CH2 LINE IN |

P4002 TO AUDIO HEAD

| | |
|---|---|
| 1 | GND |
| 2 | CH1 AUDIO HEAD (R) |
| 3 | CH1 AUDIO HEAD (W) |

P4003 TO AUDIO HEAD

| | |
|---|---|
| 1 | GND |
| 2 | CH2 AUDIO HEAD (R) |
| 3 | CH2 AUDIO HEAD (W) |

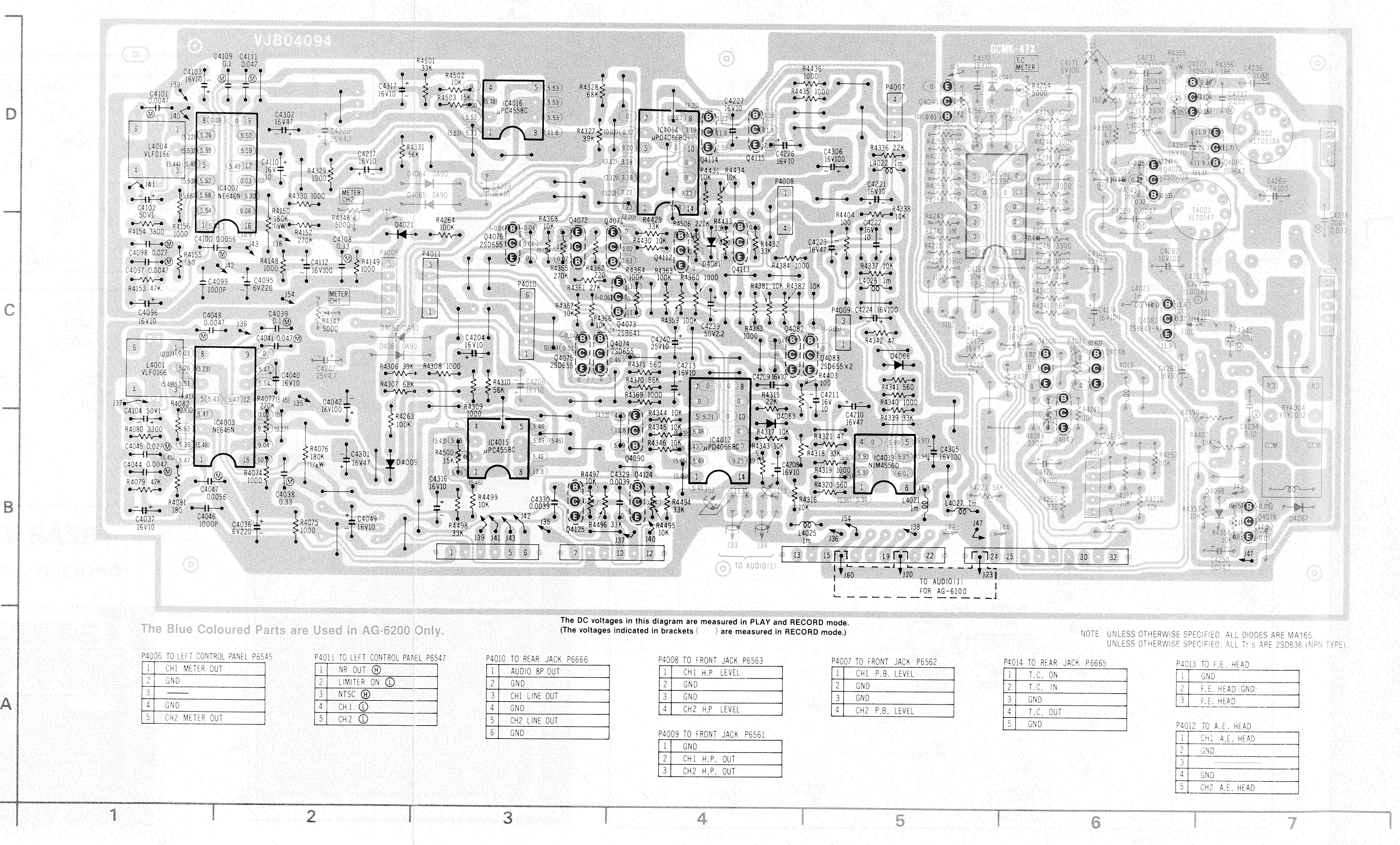
NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165.
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636 (NPN TYPE).

The DC voltages in this diagram are measured in PLAY and RECORD mode.
(The voltages indicated in brackets ( ) are measured in RECORD mode.)

The Blue Coloured Parts are Used in AG-6200 Only.

# AUDIO (2) C.B.A. (VEP04094A: AG-6200/VEP04094B: AG-6100)

| Audio (2) C.B.A.<br>(VEP04094A,B) | |
|---|---|
| Q4045 | D-5 |
| Q4048 | C-6 |
| Q4049 | B-6 |
| Q4071 | C-4 |
| Q4072 | C-3 |
| Q4073 | C-4 |
| Q4074 | C-3 |
| Q4075 | C-3 |
| Q4076 | C-3 |
| Q4077 | D-6 |
| Q4078 | B-7 |
| Q4079 | D-6 |
| Q4080 | D-7 |
| Q4081 | C-6 |
| Q4082 | C-4 |
| Q4083 | C-5 |
| Q4090 | B-4 |
| Q4100 | C-7 |
| Q4112 | C-4 |
| Q4113 | C-4 |
| Q4114 | D-4 |
| Q4115 | D-4 |
| Q4124 | B-4 |
| Q4125 | B-3 |
| IC4003 | B-2 |
| IC4007 | D-2 |
| IC4009 | D-5 |
| IC4012 | B-4 |
| IC4013 | B-5 |
| IC4014 | D-4 |
| IC4015 | B-3 |
| IC4016 | D-3 |



The Blue Coloured Parts are Used in AG-6200 Only.

**The DC voltages in this diagram are measured in PLAY and RECORD mode.**
**(The voltages indicated in brackets (   ) are measured in RECORD mode.)**

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165.
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636 (NPN TYPE).

P4006 TO LEFT CONTROL PANEL P6545

| | |
|---|---|
| 1 | CH1 METER OUT |
| 2 | GND |
| 3 | ——— |
| 4 | GND |
| 5 | CH2 METER OUT |

P4011 TO LEFT CONTROL PANEL P6547

| | |
|---|---|
| 1 | NR OUT Ⓗ |
| 2 | LIMITER ON Ⓛ |
| 3 | NTSC Ⓗ |
| 4 | CH1 Ⓛ |
| 5 | CH2 Ⓛ |

P4010 TO REAR JACK P6666

| | |
|---|---|
| 1 | AUDIO 8P OUT |
| 2 | GND |
| 3 | CH1 LINE OUT |
| 4 | GND |
| 5 | CH2 LINE OUT |
| 6 | GND |

P4008 TO FRONT JACK P6563

| | |
|---|---|
| 1 | CH1 H.P LEVEL |
| 2 | GND |
| 3 | GND |
| 4 | CH2 H.P LEVEL |

P4009 TO FRONT JACK P6561

| | |
|---|---|
| 1 | GND |
| 2 | CH1 H.P. OUT |
| 3 | CH2 H.P. OUT |

P4007 TO FRONT JACK P6562

| | |
|---|---|
| 1 | CH1 P.B. LEVEL |
| 2 | GND |
| 3 | GND |
| 4 | CH2 P.B. LEVEL |

P4014 TO REAR JACK P6665

| | |
|---|---|
| 1 | T.C. ON |
| 2 | T.C. IN |
| 3 | GND |
| 4 | T.C. OUT |
| 5 | GND |

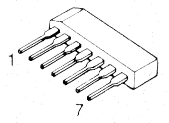
P4013 TO F.E. HEAD

| | |
|---|---|
| 1 | GND |
| 2 | F.E. HEAD (GND) |
| 3 | F.E. HEAD |

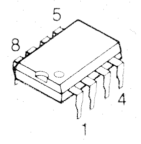
P4012 TO A.E. HEAD

| | |
|---|---|
| 1 | CH1 A.E. HEAD |
| 2 | GND |
| 3 | ——— |
| 4 | GND |
| 5 | CH2 A.E. HEAD |

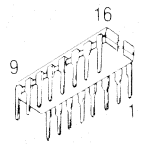
## Audio (1) C.B.A. Audio (2) C.B.A. ICs & Transistors Information



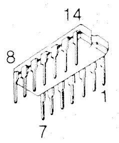
AN360



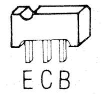
μPC4558C
NJM4556D



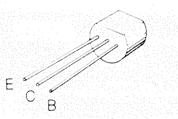
HA12005
NE646N



μPD4066BC

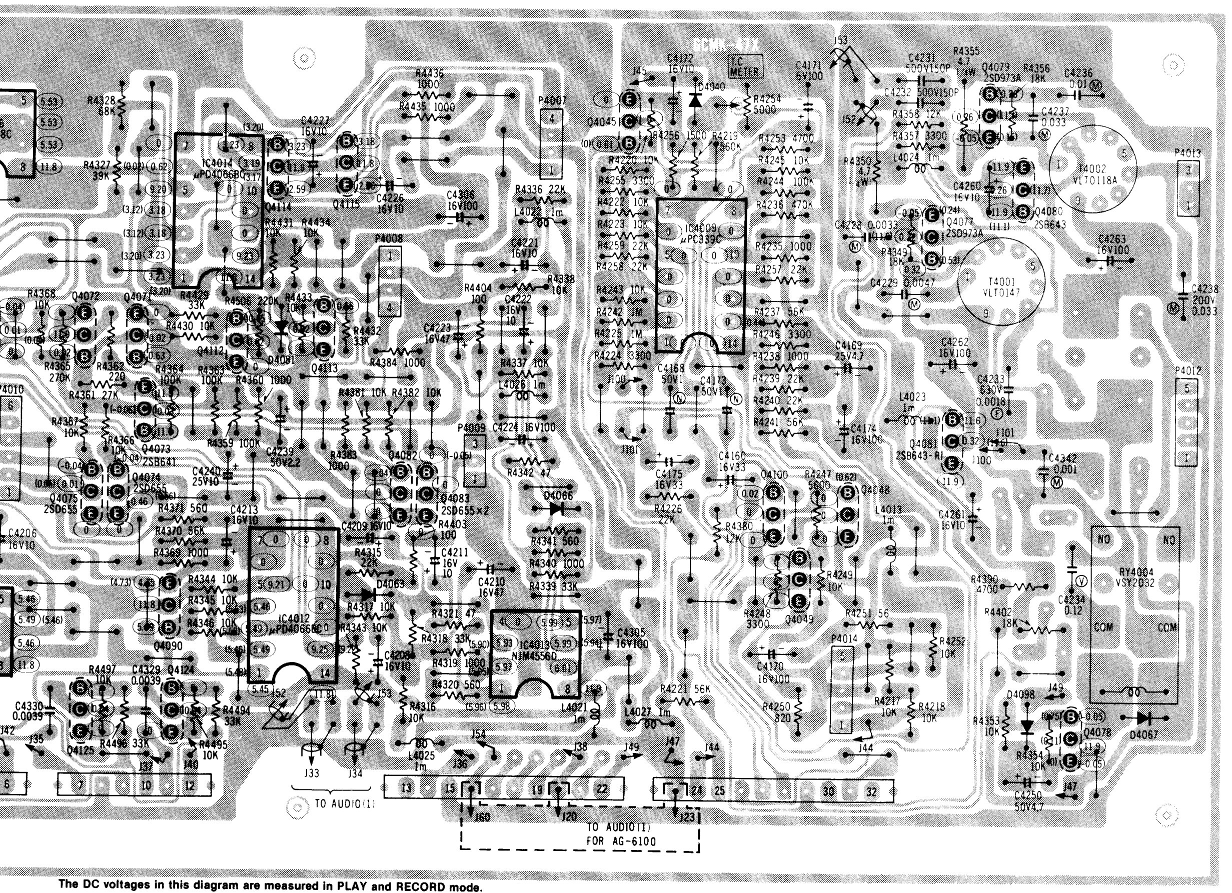


2SB641
2SB643
2SD636
2SD638
2SD973



2SD655

# G-6200/VEP04094B: AG-6100)


GCMK-47X
T.C. METER
TO AUDIO(1)
TO AUDIO(1)
FOR AG-6100
IC4011 μPD4066BC
IC4009 μPC339C
IC4012 μPD4066BC
IC4013 NJM4560
RY4004 VSY2032
T4001 VLT0147
T4002 VLT0118A
P4007
P4008
P4009
P4012
P4013
P4014
J33
J34
J20
J23
J60

**The DC voltages in this diagram are measured in PLAY and RECORD mode.**
**(The voltages indicated in brackets (      ) are measured in RECORD mode.)**

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165.
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636 (NPN TYPE).

REAR JACK P6666

| | |
|---|---|
| | DIO 8P OUT |
| | D |
| | LINE OUT |
| | D |
| | 2 LINE OUT |
| | D |

P4008 TO FRONT JACK P6563

| | |
|---|---|
| 1 | CH1 H.P LEVEL |
| 2 | GND |
| 3 | GND |
| 4 | CH2 H.P LEVEL |

P4009 TO FRONT JACK P6561

| | |
|---|---|
| 1 | GND |
| 2 | CH1 H.P. OUT |
| 3 | CH2 H.P. OUT |

P4007 TO FRONT JACK P6562

| | |
|---|---|
| 1 | CH1 P.B. LEVEL |
| 2 | GND |
| 3 | GND |
| 4 | CH2 P.B. LEVEL |

P4014 TO REAR JACK P6665

| | |
|---|---|
| 1 | T.C. ON |
| 2 | T.C. IN |
| 3 | GND |
| 4 | T.C. OUT |
| 5 | GND |

P4013 TO F.E. HEAD

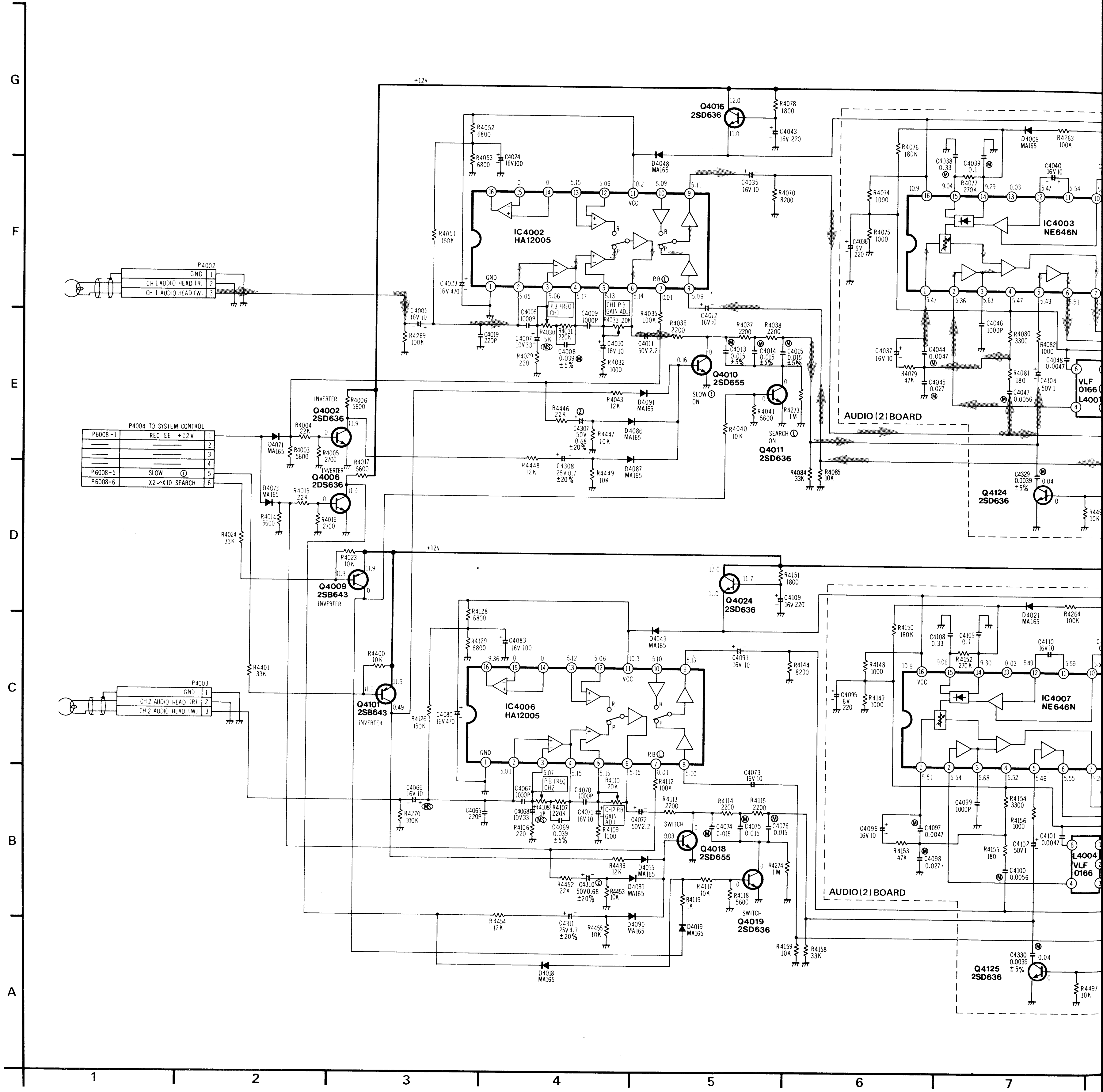
| | |
|---|---|
| 1 | GND |
| 2 | F.E. HEAD GND |
| 3 | F.E. HEAD |

P4012 TO A.E. HEAD

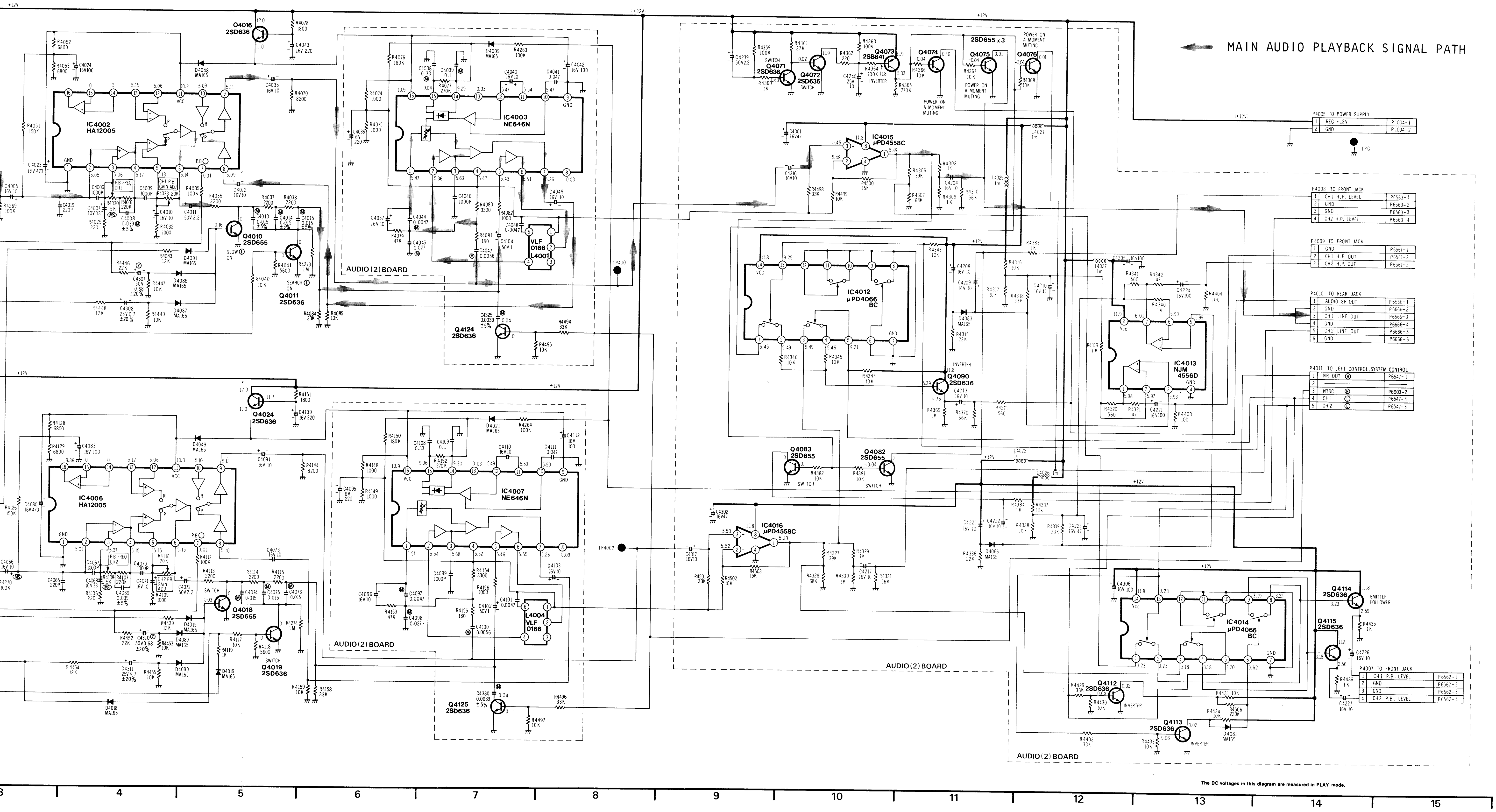
| | |
|---|---|
| 1 | CH1 A.E. HEAD |
| 2 | GND |
| 3 | ———— |
| 4 | GND |
| 5 | CH2 A.E. HEAD |

4 5 6 7

# AUDIO SCHEMATIC DIAGRAM (AG-6100)


G
F
E
D
C
B
A
1
2
3
4
5
6
7
+12V
IC4002 HA12005
IC4003 NE646N
IC4006 HA12005
IC4007 NE646N
Q4016 2SD636
Q4002 2SD636
Q4006 2SD636
Q4009 2SB643
Q4010 2SD655
Q4011 2SD636
Q4024 2SD636
Q4101 2SB643
Q4018 2SD655
Q4019 2SD636
Q4124 2SD636
Q4125 2SD636
INVERTER
SLOW ON
SEARCH ON
SWITCH
P4002
GND
CH1 AUDIO HEAD (R)
CH1 AUDIO HEAD (W)
P4003
GND
CH2 AUDIO HEAD (R)
CH2 AUDIO HEAD (W)
P4004 TO SYSTEM CONTROL
P6008-1 REC EE +12V
P6008-5 SLOW
P6008-6 X2~X10 SEARCH
P.B FREQ CH1
CH1 P.B GAIN ADJ
P.B FREQ CH2
CH2 P.B GAIN ADJ
AUDIO (2) BOARD
VLF 0166 L4001
L4004 VLF 0166

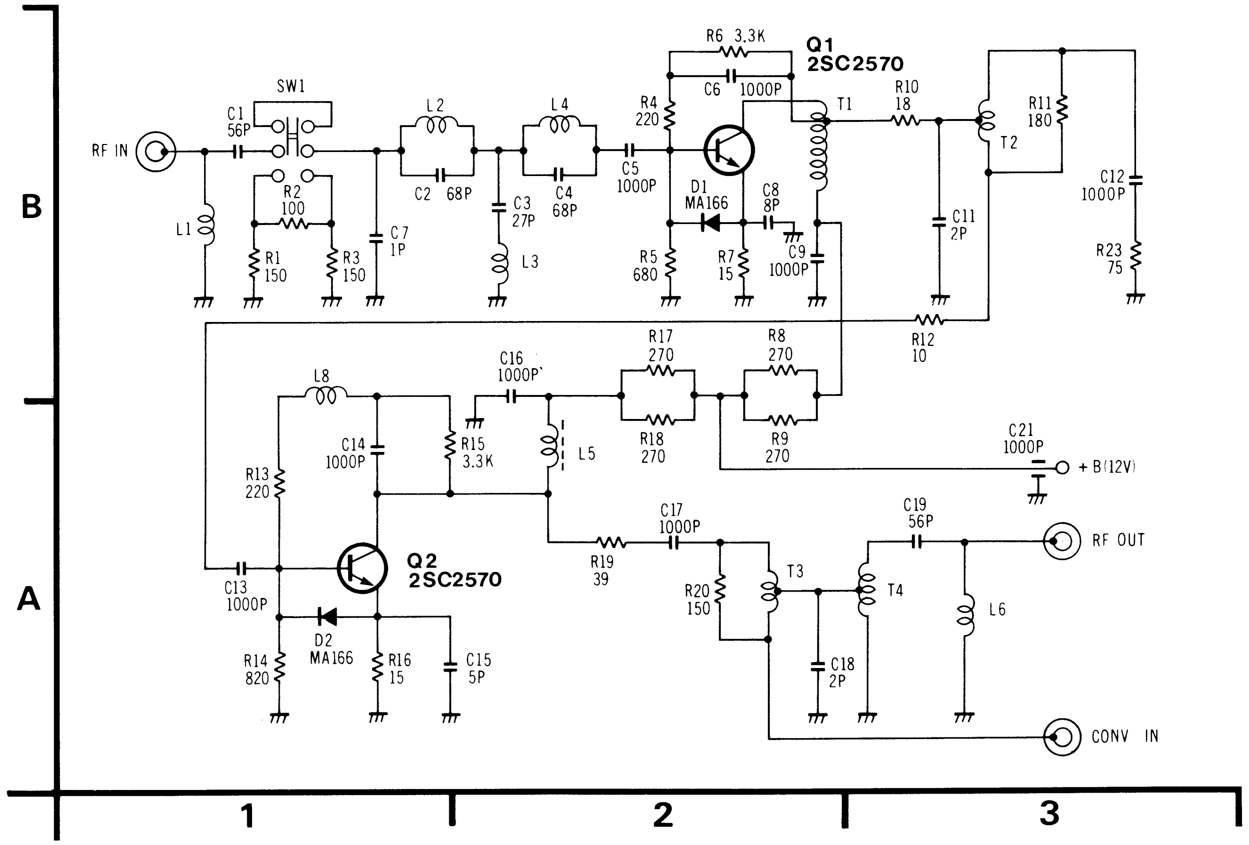
# AM (AG-6100)


MAIN AUDIO PLAYBACK SIGNAL PATH
+12V
Q4016 2SD636
IC4002 HA12005
IC4003 NE646N
VLF 0166 L4001
Q4010 2SD655
Q4011 2SD636
SLOW ON
SEARCH ON
AUDIO (2) BOARD
TP4001
Q4124 2SD636
Q4024 2SD636
IC4006 HA12005
IC4007 NE646N
L4004 VLF 0166
Q4018 2SD655
Q4019 2SD636
SWITCH
TP4002
Q4125 2SD636
P.B FREQ CH1
CH1 P.B GAIN ADJ
P.B FREQ CH2
CH2 P.B GAIN ADJ
Q4071 2SD636
Q4072 2SD636
Q4073 2SB641
INVERTER
Q4074
Q4075
Q4076
2SD655 x 3
POWER ON A MOMENT MUTING
IC4015 μPD4558C
IC4012 μPD4066 BC
Q4090 2SD636
Q4083 2SD655
Q4082 2SD655
IC4016 μPD4558C
IC4013 NJM 4556D
IC4014 μPD4066 BC
Q4114 2SD636
EMITTER FOLLOWER
Q4115 2SD636
Q4112 2SD636
Q4113 2SD636
P4005 TO POWER SUPPLY
1 REG +12V P1004-1
2 GND P1004-2
TPG
P4008 TO FRONT JACK
1 CH1 H.P. LEVEL P6563-1
2 GND P6563-2
3 GND P6563-3
4 CH2 H.P. LEVEL P6563-4
P4009 TO FRONT JACK
1 GND P6561-1
2 CH1 H.P. OUT P6561-2
3 CH2 H.P. OUT P6561-3
P4010 TO REAR JACK
1 AUDIO 8P OUT P6666-1
2 GND P6666-2
3 CH1 LINE OUT P6666-3
4 GND P6666-4
5 CH2 LINE OUT P6666-5
6 GND P6666-6
P4011 TO LEFT CONTROL, SYSTEM CONTROL
1 NR OUT Ⓗ P6547-1
2 ——— ———
3 NTSC Ⓗ P6003-2
4 CH1 Ⓛ P6547-4
5 CH2 Ⓛ P6547-5
P4007 TO FRONT JACK
1 CH1 P.B. LEVEL P6562-1
2 GND P6562-2
3 GND P6562-3
4 CH2 P.B. LEVEL P6562-4
3
4
5
6
7
8
9
10
11
12
13
14
15

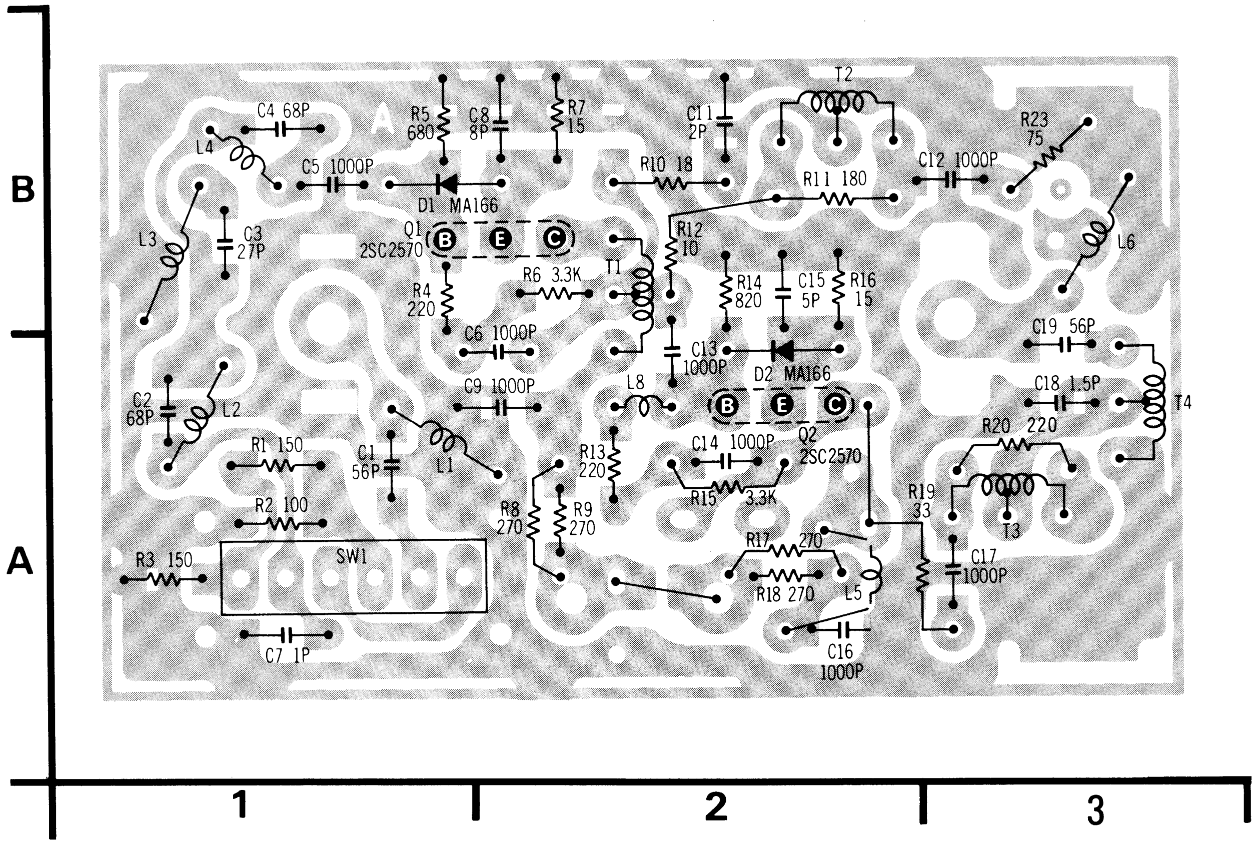
The DC voltages in this diagram are measured in PLAY mode.

# ANTENNA TERMINAL UNITS

## ENPE771 For AG-6200/6100-E

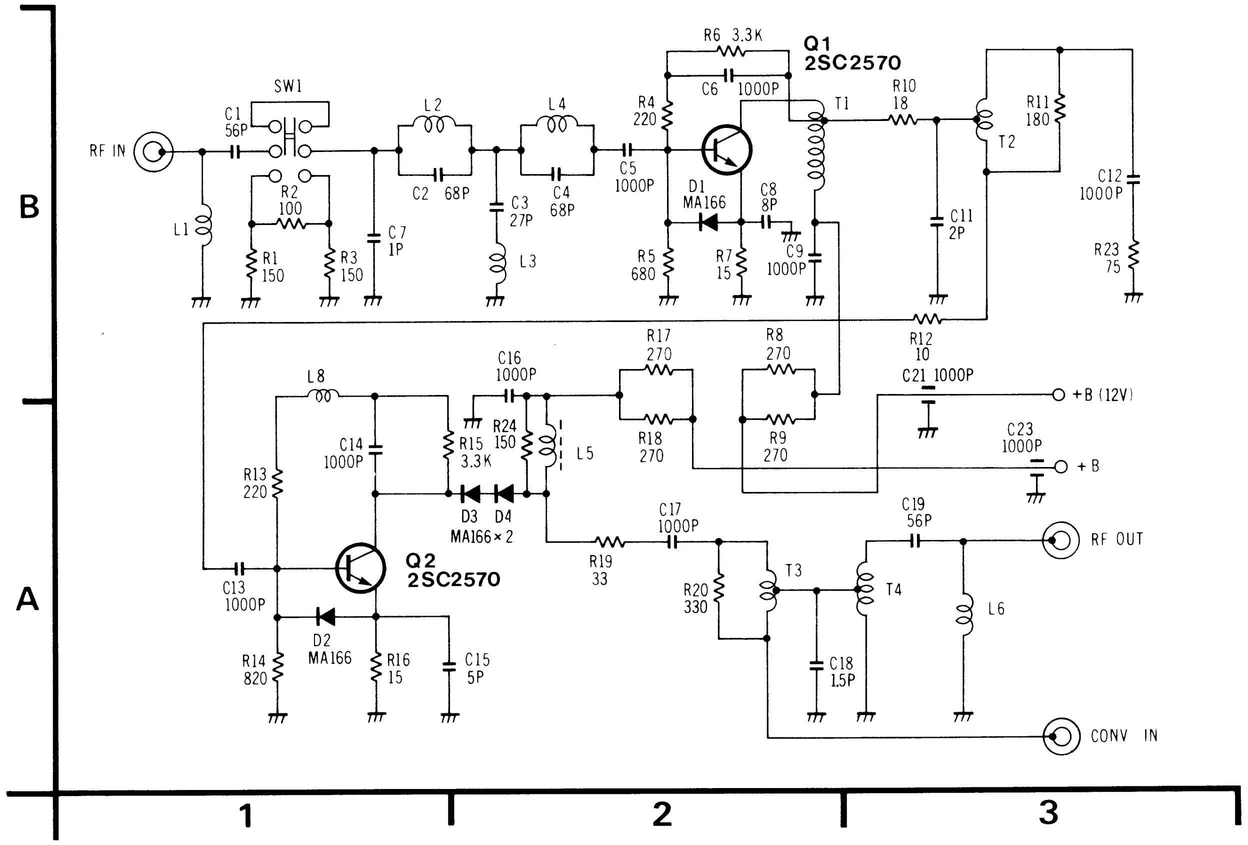


B
A
1
2
3
RF IN
SW1
C1 56P
R2 100
R1 150
R3 150
L1
C7 1P
L2
C2 68P
C3 27P
L3
L4
C4 68P
C5 1000P
R4 220
R5 680
R6 3.3K
C6 1000P
Q1 2SC2570
D1 MA166
C8 8P
R7 15
C9 1000P
T1
R10 18
C11 2P
T2
R11 180
C12 1000P
R23 75
R12 10
L8
C16 1000P
R17 270
R18 270
R8 270
R9 270
R15 3.3K
L5
C14 1000P
R13 220
C21 1000P
+B (12V)
C13 1000P
Q2 2SC2570
D2 MA166
R14 820
R16 15
C15 5P
R19 39
C17 1000P
R20 150
T3
T4
C18 2P
C19 56P
L6
RF OUT
CONV IN

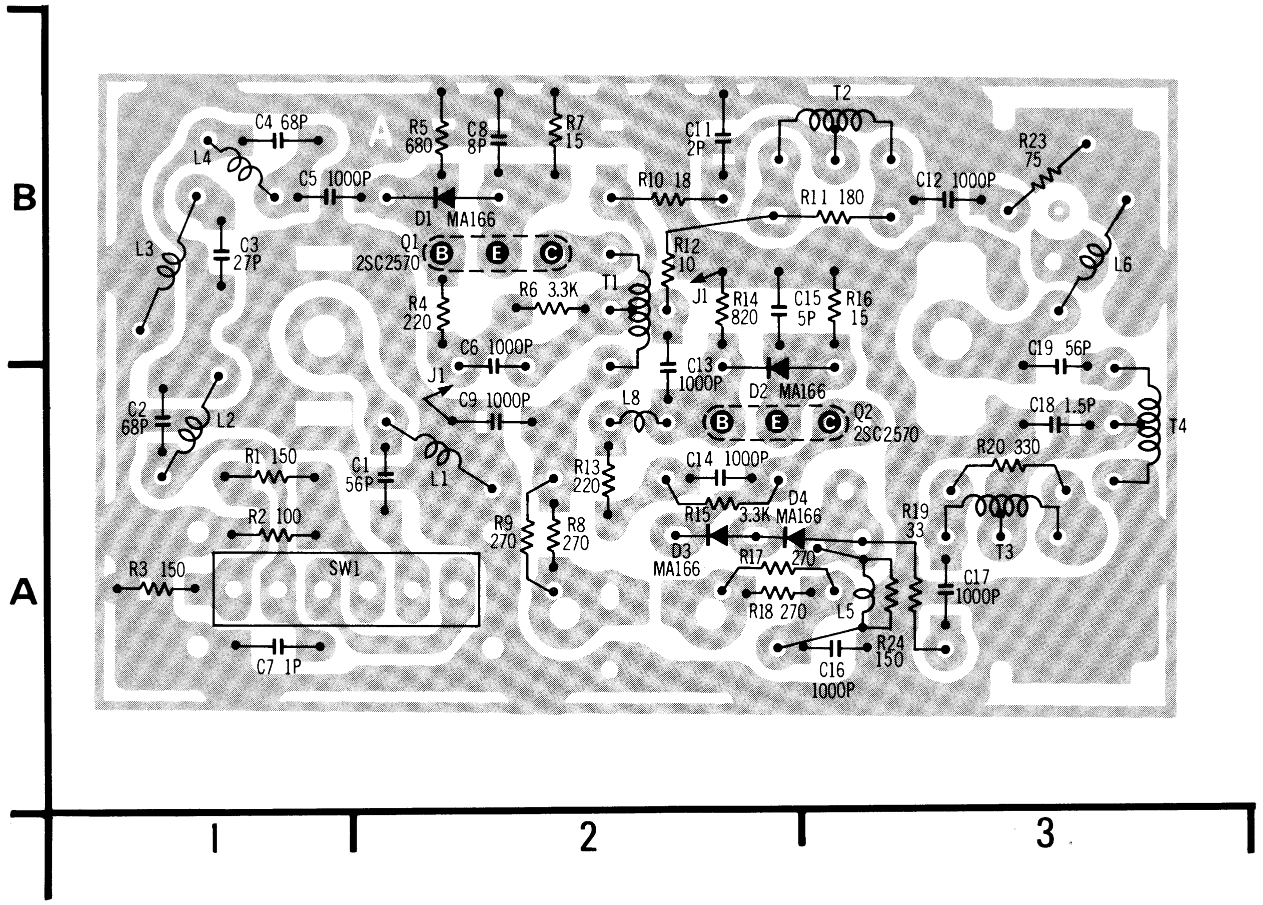


B
A
1
2
3
A
C4 68P
L4
C5 1000P
R5 680
C8 8P
R7 15
D1 MA166
C11 2P
T2
R10 18
R11 180
C12 1000P
R23 75
L6
L3
C3 27P
Q1 2SC2570
B E C
R4 220
R6 3.3K
T1
R12 10
R14 820
C15 5P
R16 15
C6 1000P
C13 1000P
D2 MA166
C19 56P
C18 1.5P
T4
C2 68P
L2
C9 1000P
L8
Q2 2SC2570
R1 150
C1 56P
L1
R13 220
C14 1000P
R15 3.3K
R20 220
R2 100
R8 270
R9 270
R19 33
T3
R3 150
SW1
R17 270
R18 270
L5
C17 1000P
C7 1P
C16 1000P

## ENPE772 For AG-6200/6100-B

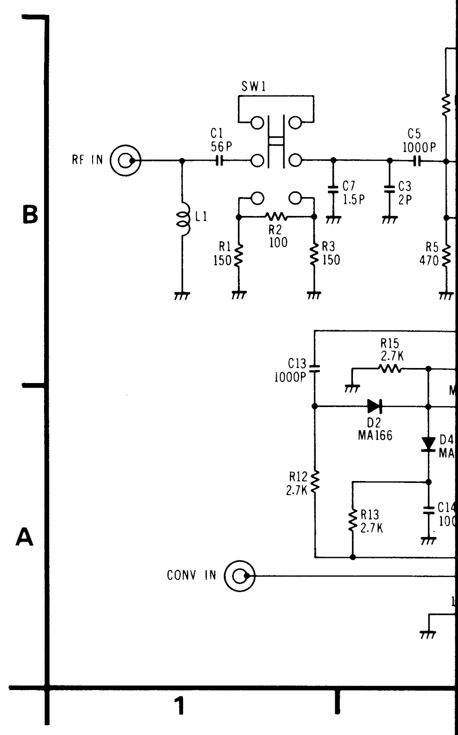


B
A
1
2
3
RF IN
SW1
C1 56P
R2 100
R1 150
R3 150
L1
C7 1P
L2
C2 68P
C3 27P
L3
L4
C4 68P
C5 1000P
R4 220
R5 680
R6 3.3K
C6 1000P
Q1 2SC2570
D1 MA166
C8 8P
R7 15
C9 1000P
T1
R10 18
C11 2P
T2
R11 180
C12 1000P
R23 75
R12 10
C21 1000P
+B (12V)
L8
C16 1000P
R17 270
R18 270
R8 270
R9 270
R15 3.3K
R24 150
L5
C14 1000P
C23 1000P
+B
D3 D4 MA166×2
R13 220
C13 1000P
Q2 2SC2570
D2 MA166
R14 820
R16 15
C15 5P
R19 33
C17 1000P
R20 330
T3
T4
C18 1.5P
C19 56P
L6
RF OUT
CONV IN

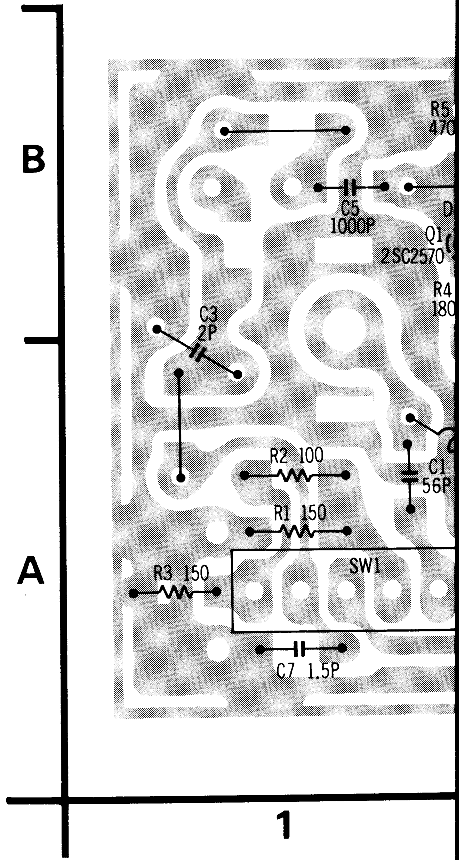


B
A
1
2
3
A
C4 68P
L4
R5 680
C8 8P
R7 15
C5 1000P
D1 MA166
C11 2P
T2
R10 18
R11 180
C12 1000P
R23 75
L6
L3
C3 27P
Q1 2SC2570
B E C
R12 10
R6 3.3K
T1
J1
R14 820
C15 5P
R16 15
R4 220
C6 1000P
C13 1000P
D2 MA166
C19 56P
C18 1.5P
T4
C2 68P
L2
J1
C9 1000P
L8
Q2 2SC2570
R1 150
C1 56P
L1
R13 220
C14 1000P
R20 330
R2 100
R9 270
R8 270
R15 3.3K
D4 MA166
D3 MA166
R17 270
R18 270
R19 33
T3
R3 150
SW1
L5
C17 1000P
R24 150
C7 1P
C16 1000P

## ENPE774 For AG-6200/61

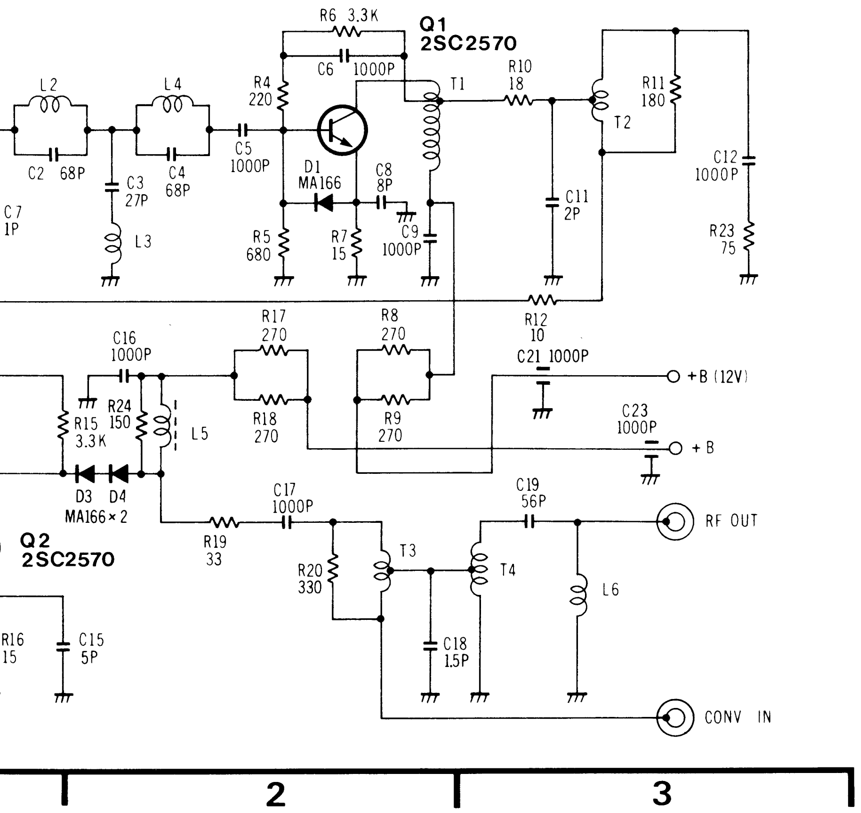


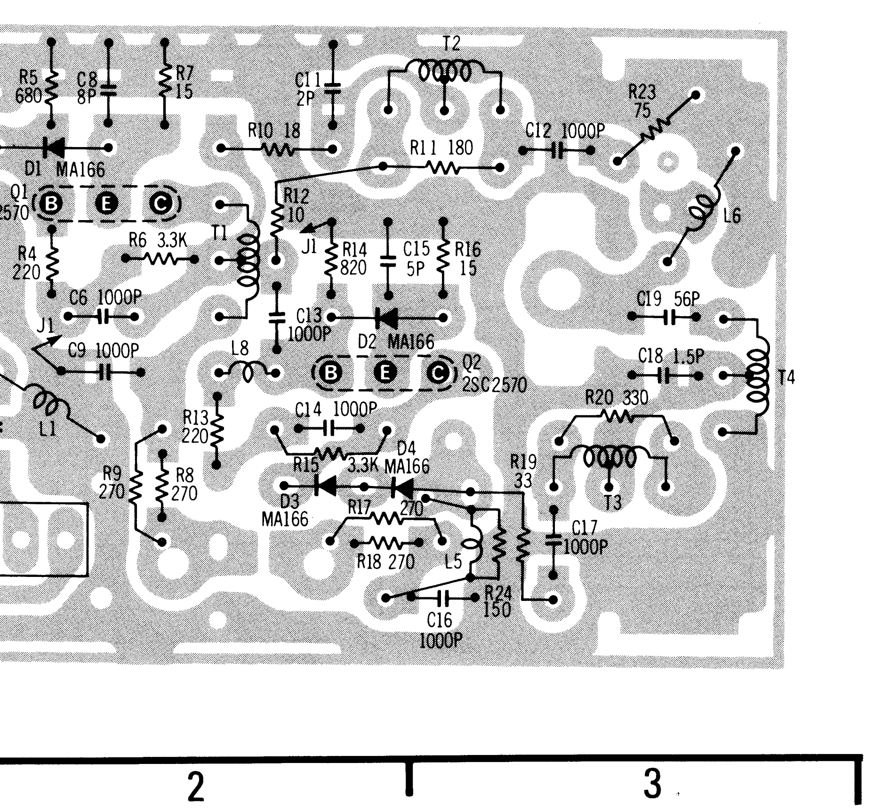
B
A
1
SW1
RF IN
C1 56P
C5 1000P
C7 1.5P
C3 2P
L1
R1 150
R2 100
R3 150
R5 470
R15 2.7K
C13 1000P
D2 MA166
R12 2.7K
R13 2.7K
CONV IN



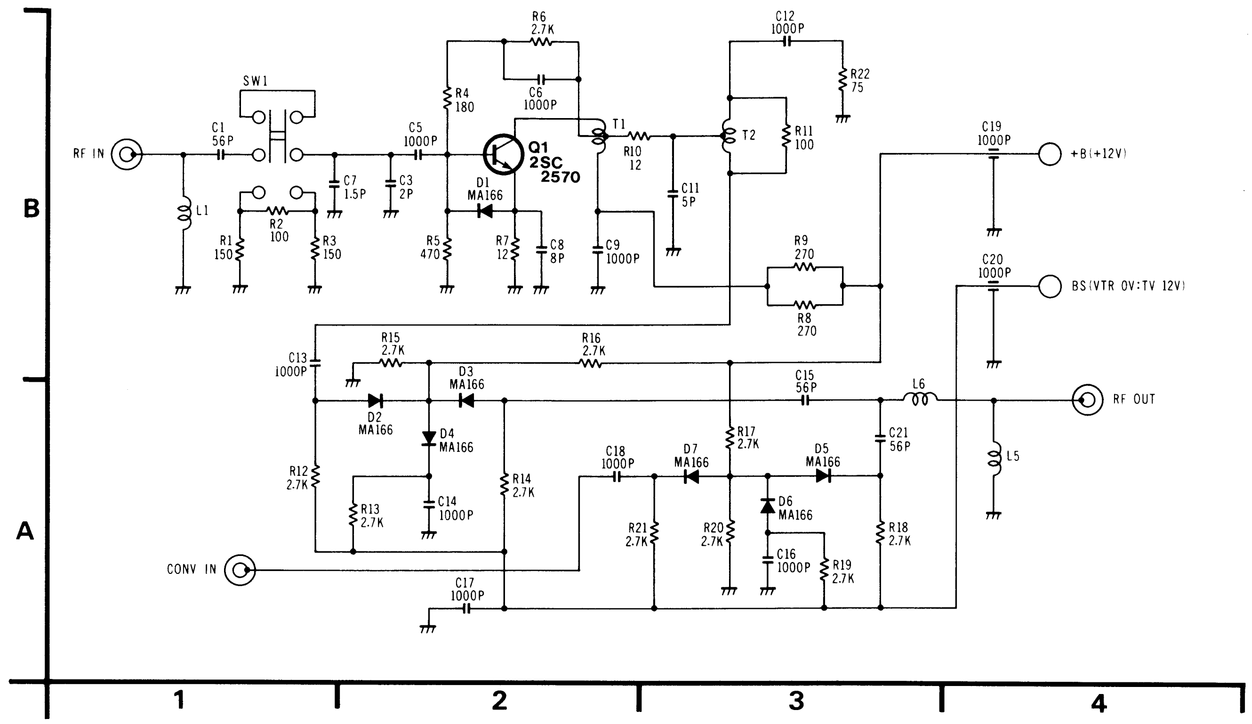
B
A
1
R5 470
C5 1000P
Q1 2SC2570
R4 180
C3 2P
R2 100
R1 150
C1 56P
R3 150
SW1
C7 1.5P

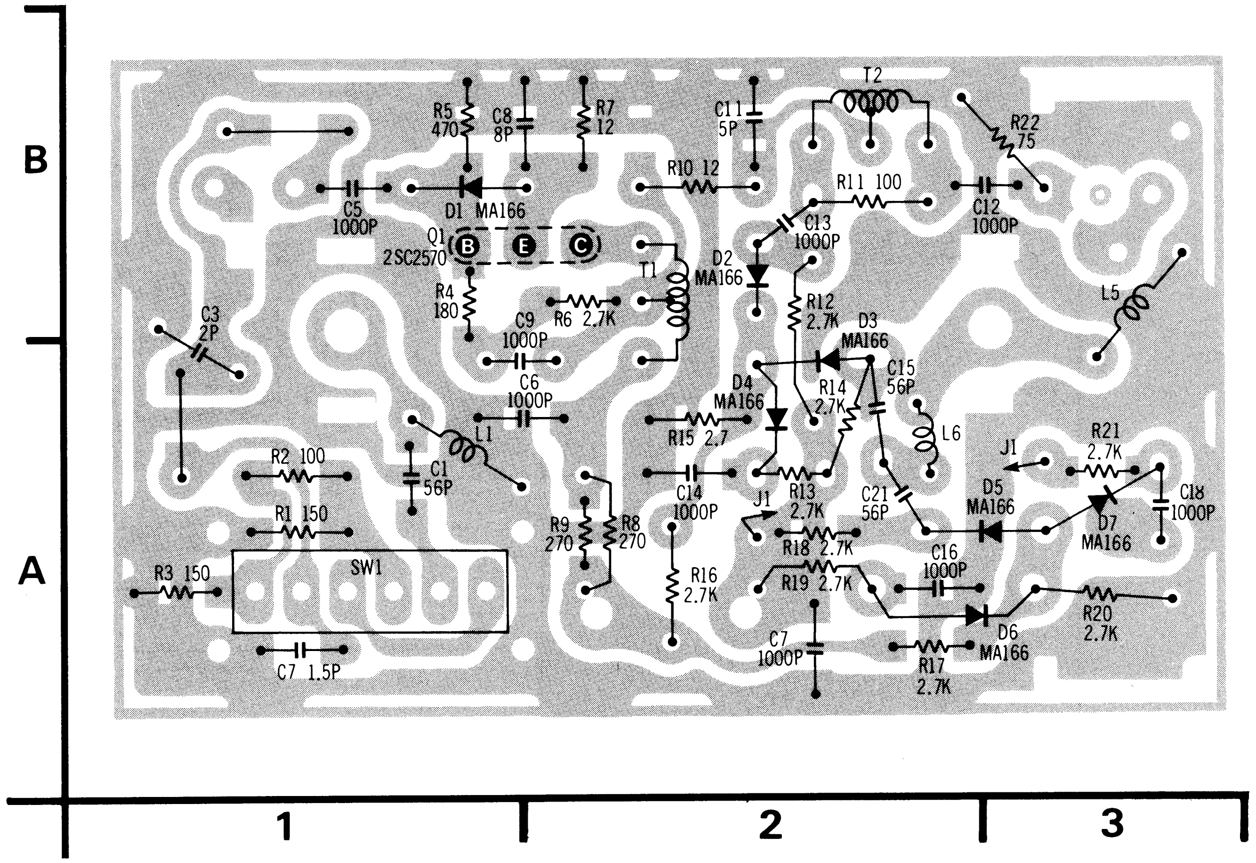
## 0/6100-B


Q1 2SC2570
Q2 2SC2570
R6 3.3K
C6 1000P
T1
T2
R10 18
R11 180
C12 1000P
R23 75
R4 220
C5 1000P
D1 MA166
C8 8P
R5 680
R7 15
C9 1000P
C11 2P
L2
L4
C2 68P
C3 27P
C4 68P
L3
R12 10
C16 1000P
R17 270
R8 270
R18 270
R9 270
C21 1000P
+B (12V)
C23 1000P
+B
R15 3.3K
R24 150
L5
D3 D4 MA166×2
C17 1000P
C19 56P
RF OUT
R19 33
R20 330
T3
T4
L6
C18 1.5P
CONV IN
R16 15
C15 5P
2
3

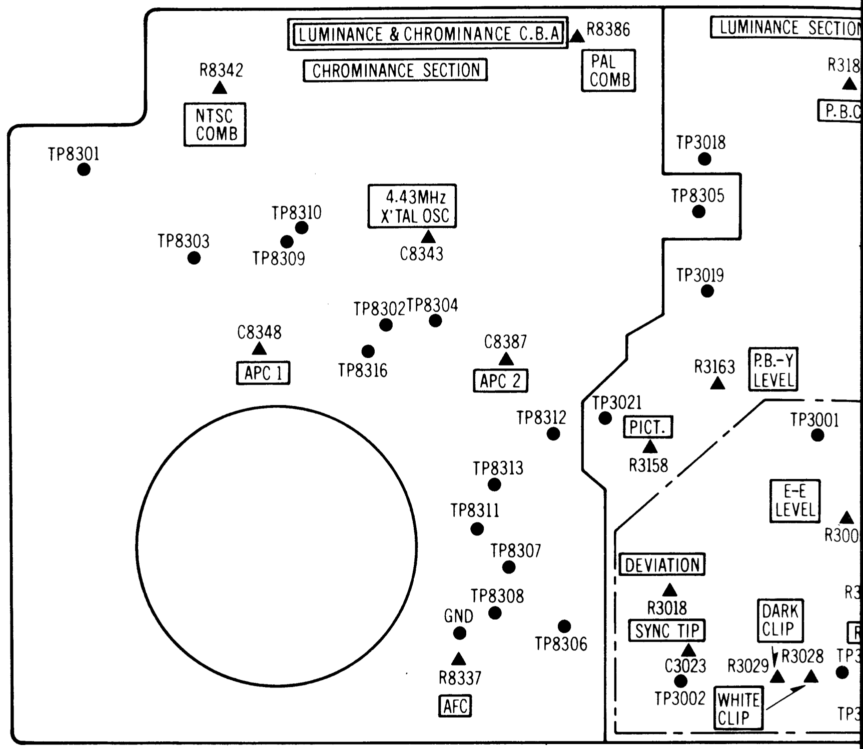

T2
R5 680
C8 8P
R7 15
C11 2P
R23 75
R10 18
R11 180
C12 1000P
D1 MA166
Q1
B E C
L6
R12 10
R6 3.3K
T1
J1
R14 820
C15 5P
R16 15
R4 220
C6 1000P
C9 1000P
C13 1000P
D2 MA166
Q2 2SC2570
C19 56P
C18 1.5P
T4
L8
L1
R13 220
C14 1000P
D4 MA166
R15 3.3K
D3 MA166
R17 270
R18 270
L5
R24 150
C16 1000P
R9 270
R8 270
R20 330
R19 33
T3
C17 1000P
2
3

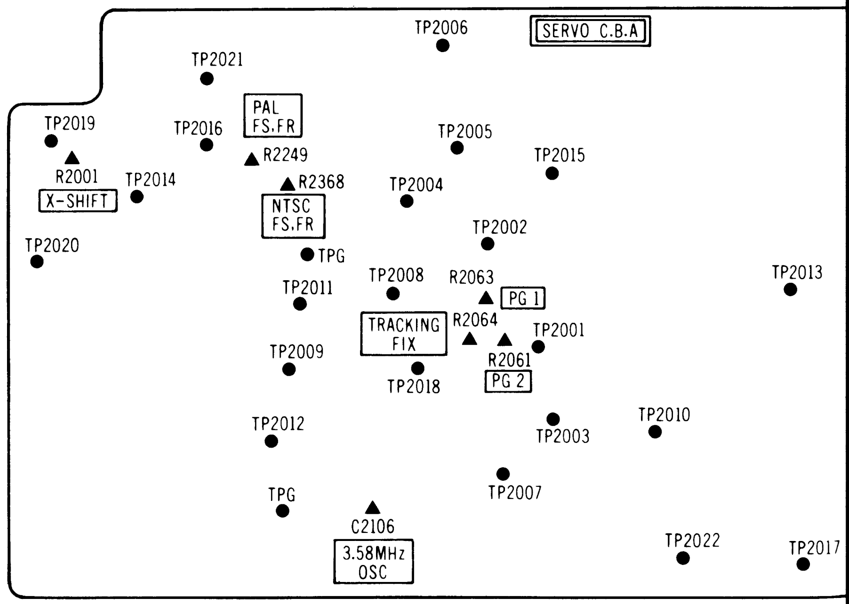
## ENPE774 For AG-6200/6100-EN, A

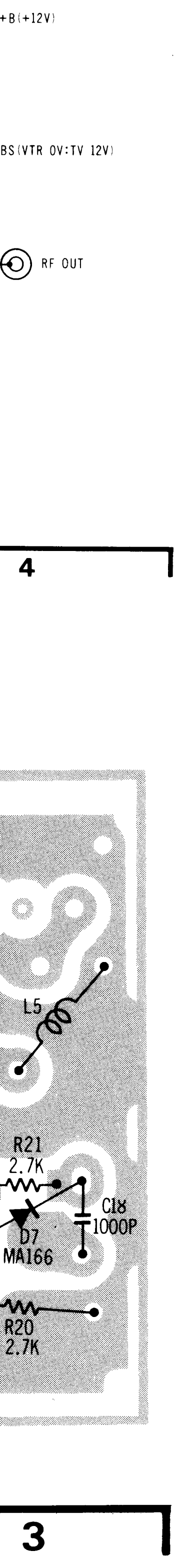

B
A
SW1
RF IN
C1 56P
L1
R1 150
R2 100
R3 150
C7 1.5P
C3 2P
C5 1000P
R6 2.7K
C6 1000P
R4 180
Q1 2SC 2570
D1 MA166
R5 470
R7 12
C8 8P
T1
R10 12
C9 1000P
C11 5P
C12 1000P
T2
R22 75
R11 100
C19 1000P
+B(+12V)
R9 270
R8 270
C20 1000P
BS(VTR OV:TV 12V)
C13 1000P
R15 2.7K
R16 2.7K
D3 MA166
D2 MA166
D4 MA166
C15 56P
L6
RF OUT
R12 2.7K
R13 2.7K
C14 1000P
R14 2.7K
C18 1000P
D7 MA166
R17 2.7K
D5 MA166
C21 56P
L5
D6 MA166
R21 2.7K
R20 2.7K
C16 1000P
R19 2.7K
R18 2.7K
CONV IN
C17 1000P
1
2
3
4


B
A
T2
R5 470
C8 8P
R7 12
C11 5P
R22 75
C5 1000P
D1 MA166
R10 12
R11 100
C12 1000P
C13 1000P
Q1 2SC2570
B E C
T1
D2 MA166
R4 180
R6 2.7K
C9 1000P
R12 2.7K
D3 MA166
L5
C3 2P
C6 1000P
D4 MA166
R14 2.7K
C15 56P
L1
R15 2.7
L6
C1 56P
J1
R21 2.7K
R2 100
C14 1000P
R13 2.7K
C21 56P
D5 MA166
C18 1000P
R1 150
R9 270
R8 270
R18 2.7K
D7 MA166
R3 150
SW1
R16 2.7K
R19 2.7K
C16 1000P
R20 2.7K
D6 MA166
C7 1000P
R17 2.7K
C7 1.5P
1
2
3

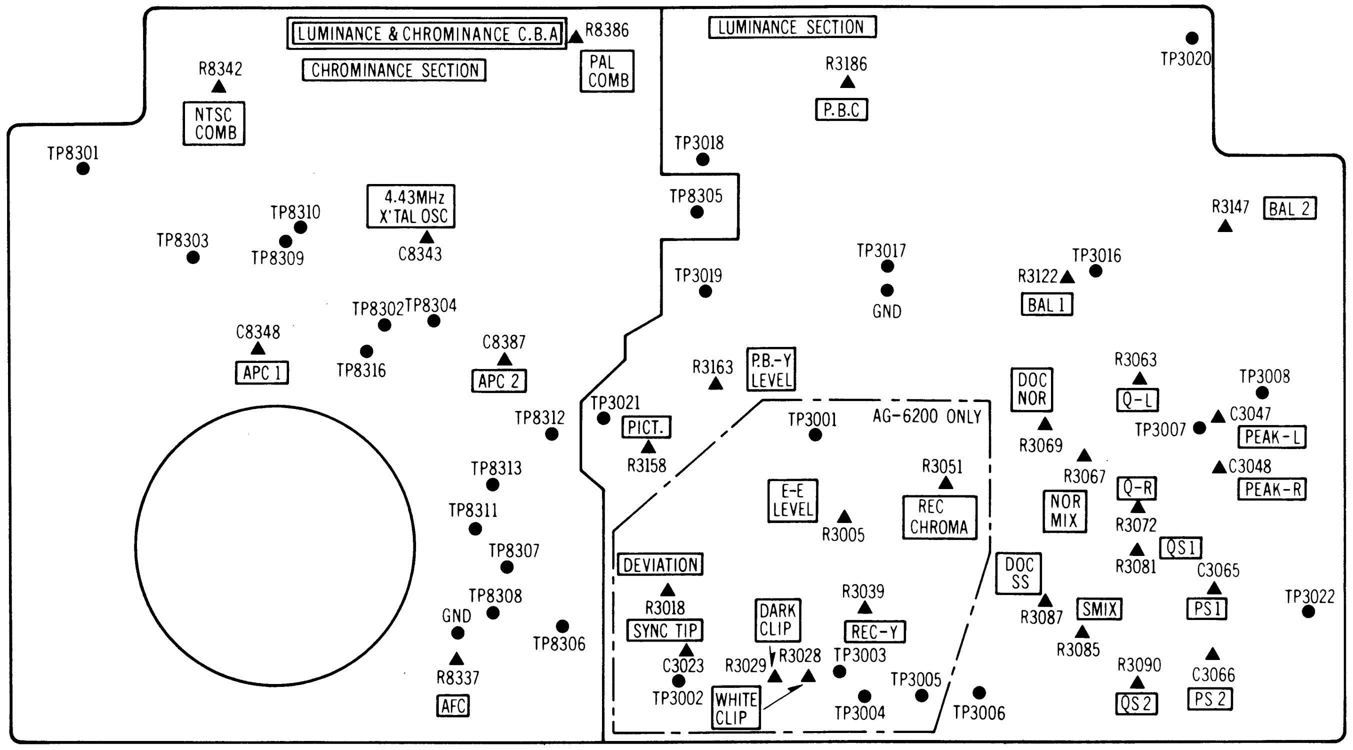
## CIRCUIT BOAR

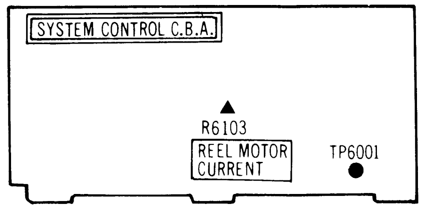

LUMINANCE & CHROMINANCE C.B.A
R8386
CHROMINANCE SECTION
PAL COMB
R8342
NTSC COMB
TP8301
TP8303
TP8310
TP8309
4.43MHz X'TAL OSC
C8343
TP8302
TP8304
C8348
APC 1
TP8316
C8387
APC 2
TP8312
TP8313
TP8311
TP8307
TP8308
GND
TP8306
R8337
AFC
LUMINANCE SECTION
R318
P.B.C
TP3018
TP8305
TP3019
R3163
P.B.-Y LEVEL
TP3021
PICT.
R3158
TP3001
E-E LEVEL
R300
DEVIATION
R3018
SYNC TIP
C3023
DARK CLIP
R3029
R3028
TP3002
WHITE CLIP

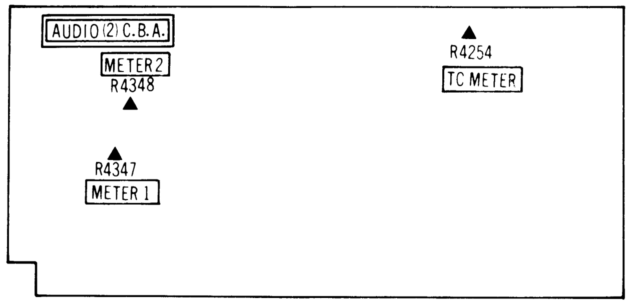

SERVO C.B.A
TP2006
TP2021
TP2019
TP2016
PAL FS.FR
R2249
TP2005
TP2015
R2001
X-SHIFT
TP2014
R2368
NTSC FS.FR
TP2004
TP2020
TPG
TP2002
TP2011
TP2008
R2063
PG 1
TP2013
TRACKING FIX
R2064
TP2001
TP2009
TP2018
R2061
PG 2
TP2012
TP2003
TP2010
TPG
C2106
3.58MHz OSC
TP2007
TP2022
TP2017

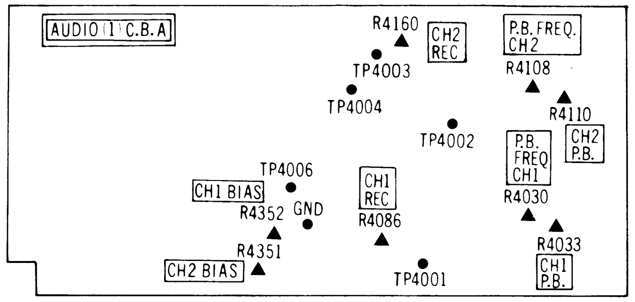

+B(+12V)
BS(VTR OV:TV 12V)
RF OUT
4
L5
R21
2.7K
C18
1000P
D7
MA166
R20
2.7K
3

# CIRCUIT BOARDS LAYOUT, LOCATION OF TEST POINTS & CONTROLS

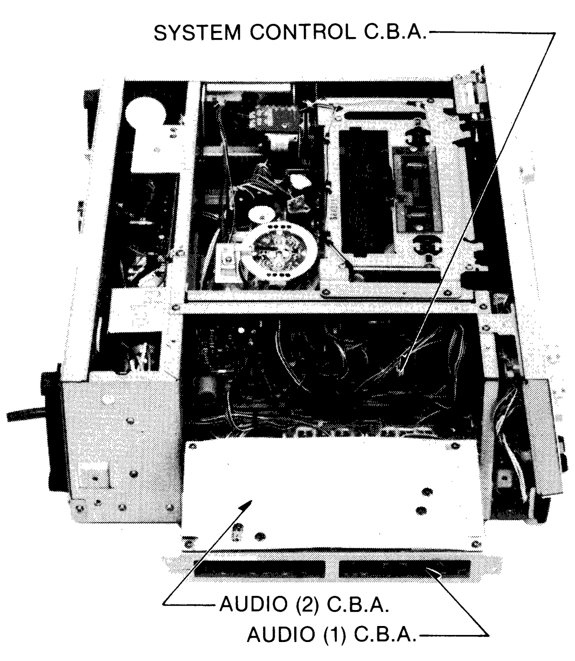

LUMINANCE & CHROMINANCE C.B.A.
CHROMINANCE SECTION
LUMINANCE SECTION
R8386
PAL COMB
R8342
NTSC COMB
TP8301
TP8310
TP8303
TP8309
4.43MHz X'TAL OSC
C8343
TP8302
TP8304
C8348
APC 1
TP8316
C8387
APC 2
TP8312
TP8313
TP8311
TP8307
TP8308
GND
TP8306
R8337
AFC
R3186
P.B.C
TP3020
TP3018
TP8305
TP3019
TP3017
GND
TP3016
R3122
BAL 1
R3147
BAL 2
R3163
P.B.-Y LEVEL
TP3021
PICT.
R3158
TP3001
AG-6200 ONLY
E-E LEVEL
R3005
R3051
REC CHROMA
DEVIATION
R3018
SYNC TIP
DARK CLIP
R3039
REC-Y
C3023
R3029
R3028
TP3003
TP3002
WHITE CLIP
TP3004
TP3005
TP3006
DOC NOR
R3069
R3063
Q-L
TP3007
TP3008
C3047
PEAK-L
C3048
PEAK-R
R3067
NOR MIX
Q-R
R3072
QS1
R3081
C3065
DOC SS
R3087
SMIX
PS1
R3085
R3090
QS2
C3066
PS2
TP3022

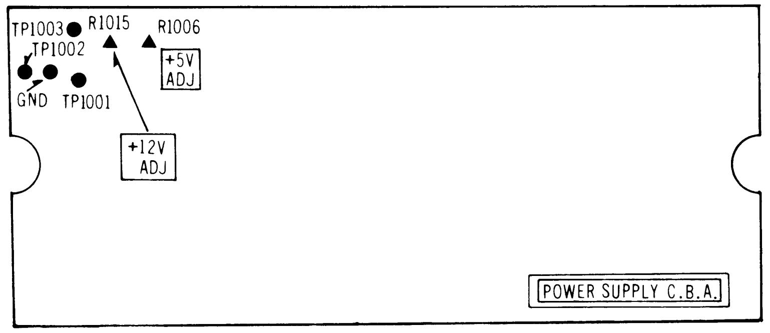

SYSTEM CONTROL C.B.A.
R6103
REEL MOTOR CURRENT
TP6001


AUDIO (2) C.B.A.
METER 2
R4348
R4347
METER 1
R4254
TC METER

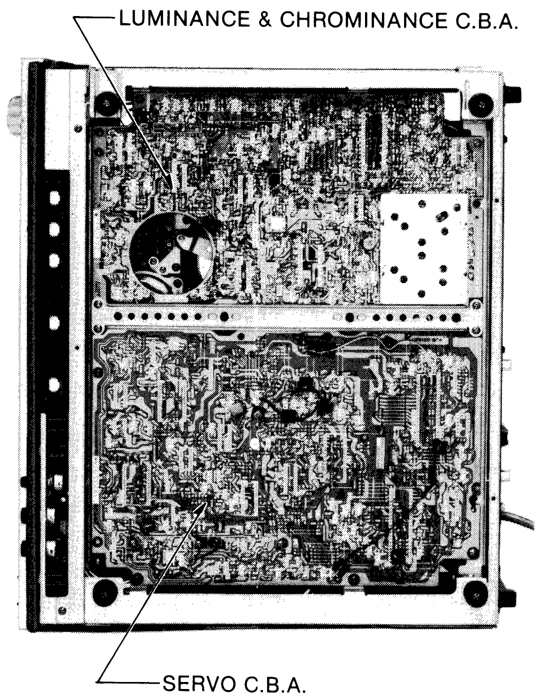

AUDIO (1) C.B.A.
R4160
CH2 REC
TP4003
TP4004
P.B. FREQ. CH2
R4108
R4110
TP4002
P.B. FREQ CH1
CH2 P.B.
R4030
TP4006
CH1 BIAS
R4352
GND
CH1 REC
R4086
R4351
CH2 BIAS
TP4001
R4033
CH1 P.B.

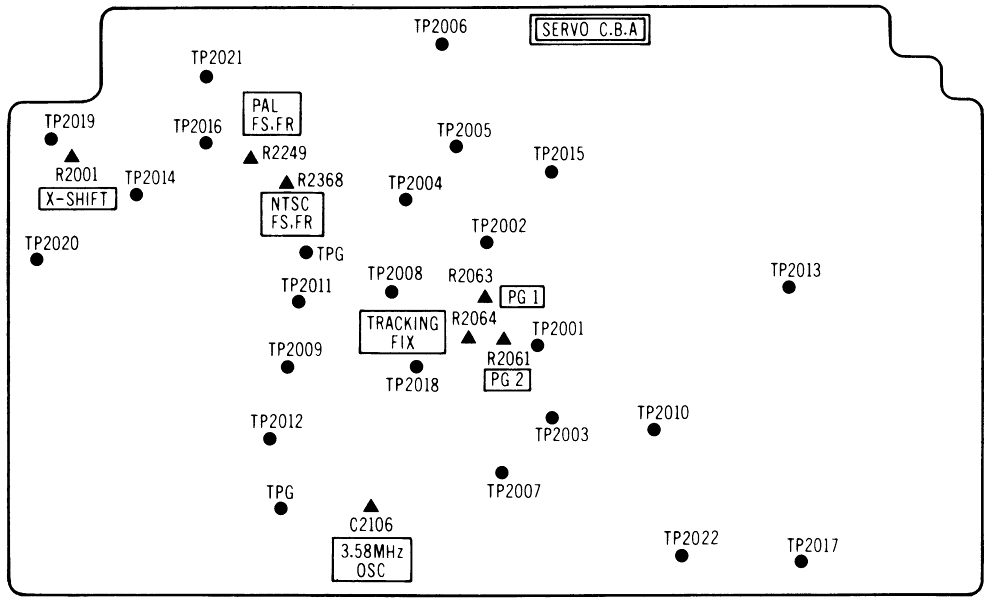
## LEFT SIDE VIEW


SYSTEM CONTROL C.B.A.
AUDIO (2) C.B.A.
AUDIO (1) C.B.A.

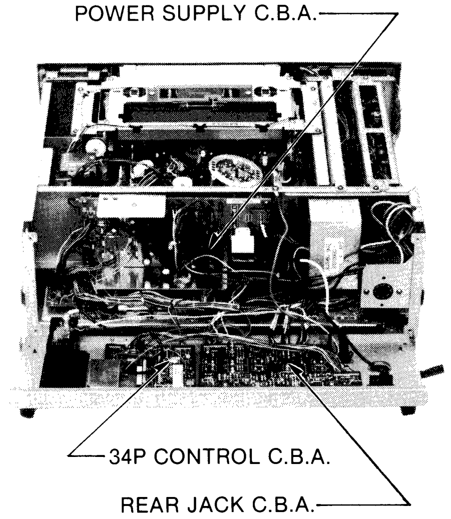

TP1003
R1015
R1006
TP1002
+5V ADJ
GND
TP1001
+12V ADJ
POWER SUPPLY C.B.A.

## BOTTOM VIEW

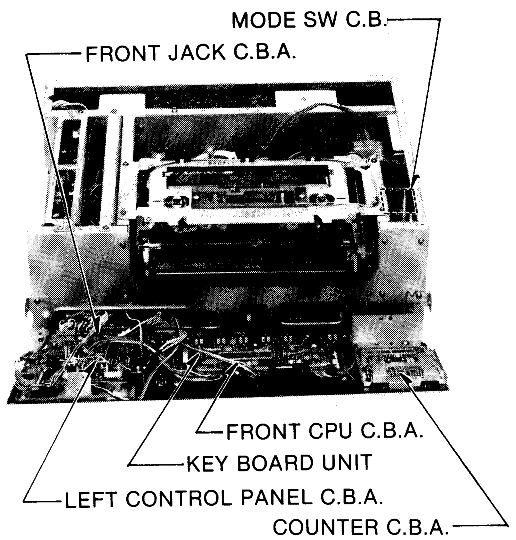

LUMINANCE & CHROMINANCE C.B.A.
SERVO C.B.A.


TP2006
SERVO C.B.A.
TP2021
TP2019
TP2016
PAL FS.FR
R2249
TP2005
TP2015
R2001
TP2014
X-SHIFT
R2368
NTSC FS.FR
TP2004
TP2020
TPG
TP2002
TP2011
TP2008
R2063
PG 1
TP2013
TRACKING FIX
R2064
TP2001
TP2009
TP2018
R2061
PG 2
TP2012
TP2003
TP2010
TPG
C2106
3.58MHz OSC
TP2007
TP2022
TP2017

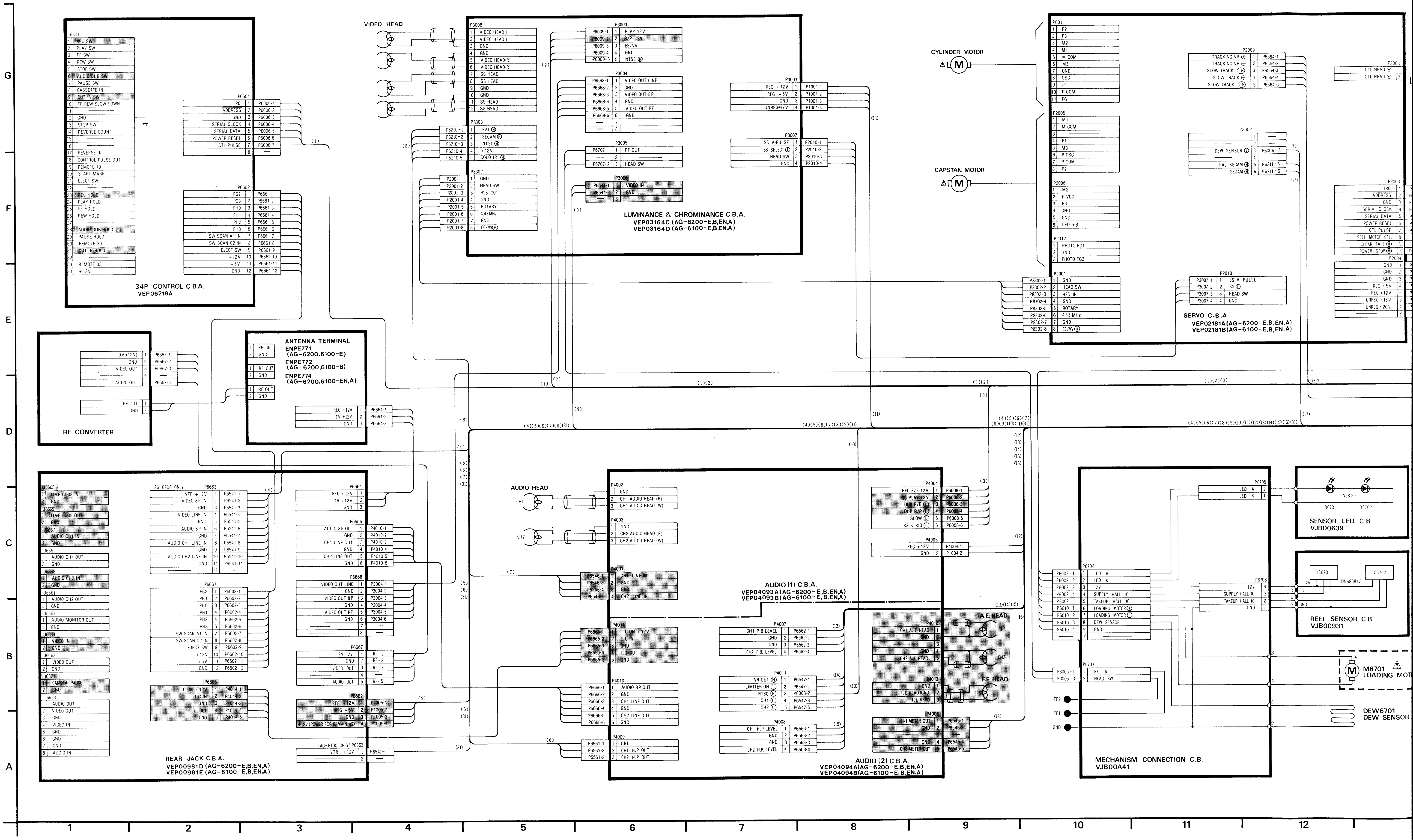
## REAR VIEW


POWER SUPPLY C.B.A.
34P CONTROL C.B.A.
REAR JACK C.B.A.

## FRONT VIEW


MODE SW C.B.
FRONT JACK C.B.A.
FRONT CPU C.B.A.
KEY BOARD UNIT
LEFT CONTROL PANEL C.B.A.
COUNTER C.B.A.

# INTERCONNECTION SCHEMATIC DIAGRAM


34P CONTROL C.B.A.
VEP06219A
RF CONVERTER
ANTENNA TERMINAL
ENPE771 (AG-6200.6100-E)
ENPE772 (AG-6200.6100-B)
ENPE774 (AG-6200.6100-EN,A)
VIDEO HEAD
LUMINANCE & CHROMINANCE C.B.A.
VEP03164C (AG-6200-E,B,EN,A)
VEP03164D (AG-6100-E,B,EN,A)
CYLINDER MOTOR
CAPSTAN MOTOR
SERVO C.B.A
VEP02181A(AG-6200-E,B,EN,A)
VEP02181B(AG-6100-E,B,EN,A)
REAR JACK C.B.A.
VEP00981D (AG-6200-E,B,EN,A)
VEP00981E (AG-6100-E,B,EN,A)
AUDIO HEAD
CH1
CH2
AUDIO (1) C.B.A.
VEP04093A(AG-6200-E,B,EN,A)
VEP04093B(AG-6100-E,B,EN,A)
AUDIO (2) C.B.A.
VEP04094A(AG-6200-E,B,EN,A)
VEP04094B(AG-6100-E,B,EN,A)
A.E. HEAD
F.E. HEAD
SENSOR LED C.B.
VJB00639
REEL SENSOR C.B.
VJB00931
M6701
LOADING MOT
DEW6701
DEW SENSOR
MECHANISM CONNECTION C.B.
VJB00A41
TP2
TP1
GND
G
F
E
D
C
B
A
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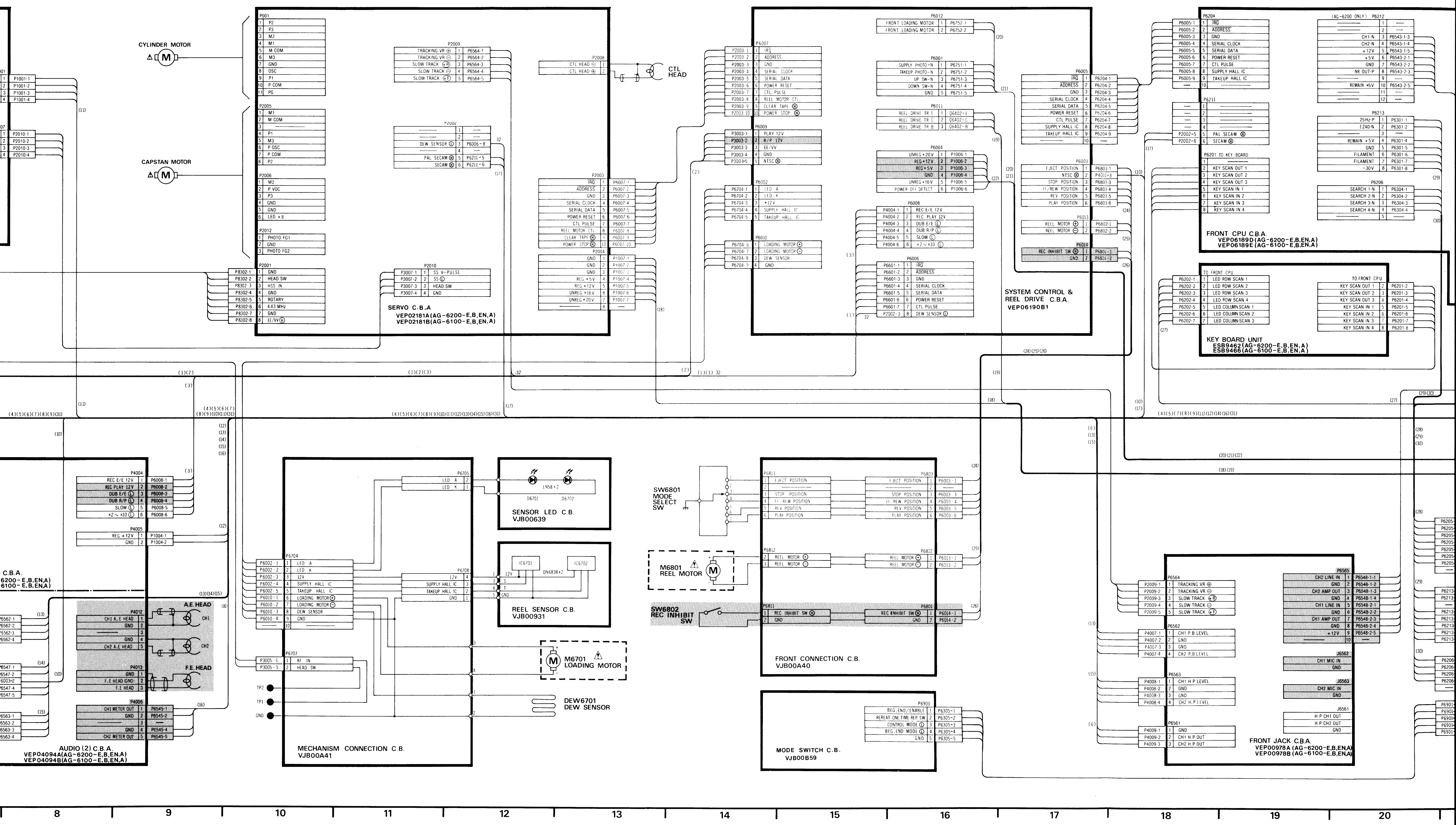
CYLINDER MOTOR
CAPSTAN MOTOR
CTL HEAD
SERVO C.B.A
VEP02181A(AG-6200-E,B,EN,A)
VEP02181B(AG-6100-E,B,EN,A)
SYSTEM CONTROL &
REEL DRIVE C.B.A.
VEP06190B1
FRONT CPU C.B.A.
VEP06189D(AG-6200-E,B,EN,A)
VEP06189E(AG-6100-E,B,EN,A)
KEY BOARD UNIT
ESB9462(AG-6200-E,B,EN,A)
ESB9466(AG-6100-E,B,EN,A)
AUDIO (2) C.B.A.
VEP04094A(AG-6200-E,B,EN,A)
VEP04094B(AG-6100-E,B,EN,A)
A.E.HEAD
F.E.HEAD
MECHANISM CONNECTION C.B.
VJB00A41
SENSOR LED C.B.
VJB00639
REEL SENSOR C.B.
VJB00931
M6701
LOADING MOTOR
DEW6701
DEW SENSOR
SW6801
MODE
SELECT
SW
M6801
REEL MOTOR
SW6802
REC INHIBIT
SW
FRONT CONNECTION C.B.
VJB00A40
MODE SWITCH C.B.
VJB00B59
FRONT JACK C.B.A.
VEP00978A(AG-6200-E,B,EN,A)
VEP00978B(AG-6100-E,B,EN,A)
P001
P2009
P2008
P2005
P2006
P2012
P2001
P2010
P2002
P2003
P2004
P6007
P6009
P6002
P6010
P6012
P6001
P6011
P6004
P6008
P6006
P6005
P6003
P6013
P6014
P6204
P6211
P6201 TO KEY BOARD
P6212
P6213
P6206
P4004
P4005
P4012
P4013
P4006
P6704
P6705
P6708
P6707
P6813
P6803
P6812
P6802
P6811
P6801
P6901
P6564
P6562
P6563
P6561
P6565
J6562
J6563
J6561
IC6701
IC6702
DN6838×2
LN58×2
D6701
D6702
TP2
TP1
GND
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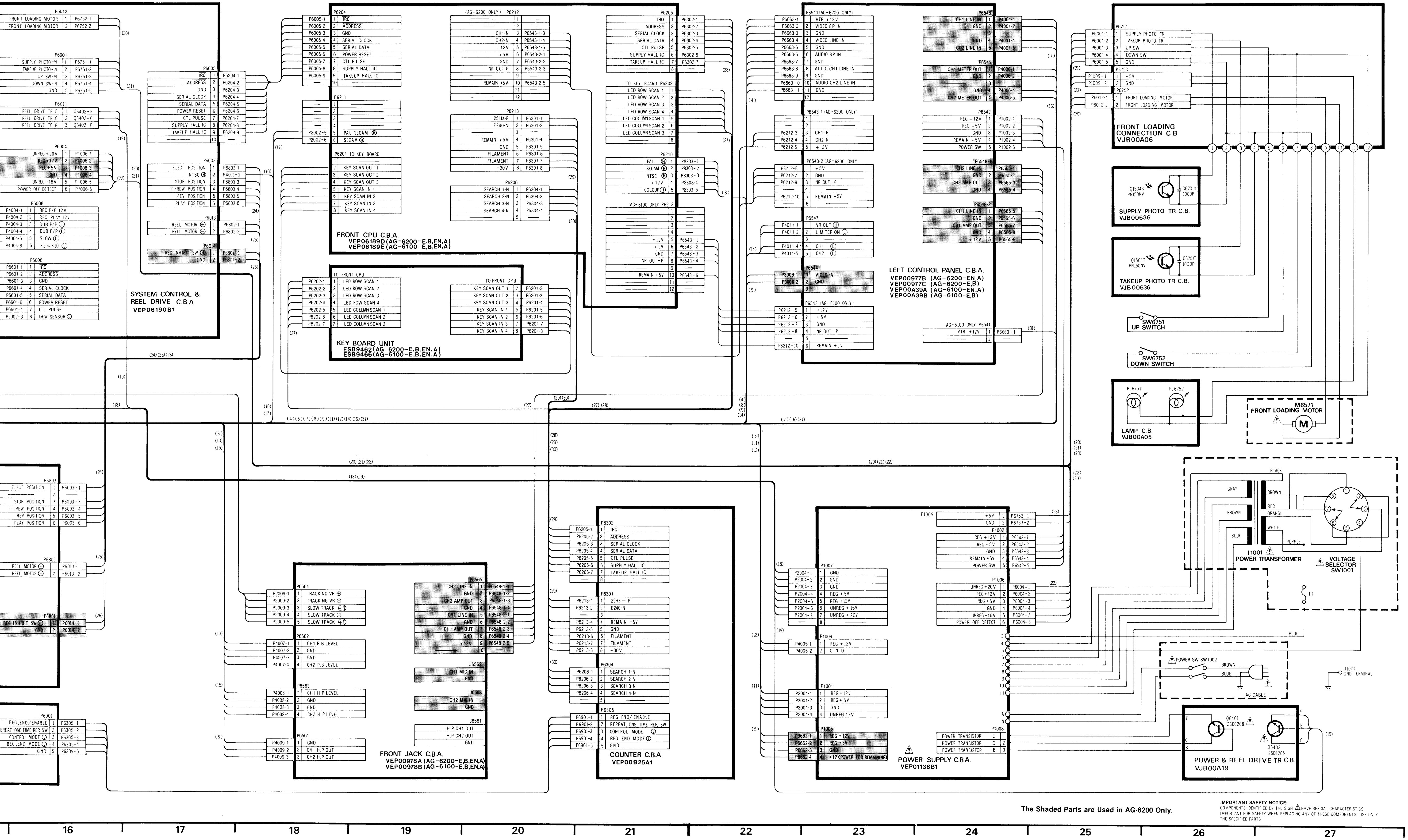
SYSTEM CONTROL & REEL DRIVE C.B.A.
VEP06190B1
FRONT CPU C.B.A.
VEP06189D (AG-6200-E,B,EN,A)
VEP06189E (AG-6100-E,B,EN,A)
KEY BOARD UNIT
ESB9462 (AG-6200-E,B,EN,A)
ESB9466 (AG-6100-E,B,EN,A)
LEFT CONTROL PANEL C.B.A.
VEP00977B (AG-6200-EN,A)
VEP00977C (AG-6200-E,B)
VEP00A39A (AG-6100-EN,A)
VEP00A39B (AG-6100-E,B)
FRONT LOADING CONNECTION C.B
VJB00A06
SUPPLY PHOTO TR C.B.
VJB00636
TAKEUP PHOTO TR C.B
VJB00636
SW6751
UP SWITCH
SW6752
DOWN SWITCH
LAMP C.B.
VJB00A05
M6571
FRONT LOADING MOTOR
T1001
POWER TRANSFORMER
VOLTAGE SELECTOR
SW1001
POWER SW SW1002
AC CABLE
J1001
GND TERMINAL
POWER & REEL DRIVE TR C.B.
VJB00A19
Q6401
2SD1268
Q6402
2SD1265
FRONT JACK C.B.A.
VEP00978A (AG-6200-E,B,EN,A)
VEP00978B (AG-6100-E,B,EN,A)
COUNTER C.B.A.
VEP00B25A1
POWER SUPPLY C.B.A.
VEP01138B1
BLACK
GRAY
BROWN
RED
ORANGE
WHITE
BLUE
PURPLE
16
17
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**The Shaded Parts are Used in AG-6200 Only.**

**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY THE SPECIFIED PARTS

ORDER NO. VRD-8309-484

# Service Manual

**Vol. 4**

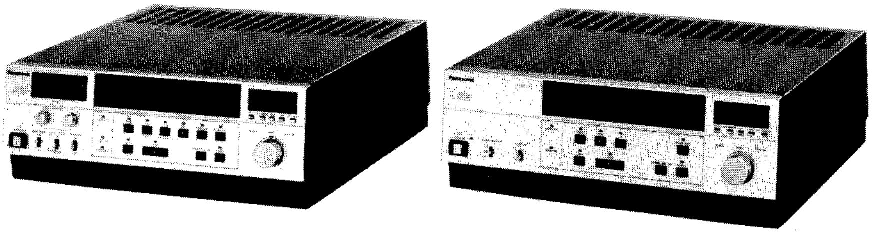
**Panasonic / National VHS**

Video Cassette Recorder

## AG-6200 -E -B -EN -A

Video Cassette Player

## *Exploded Views*
## *Replacement Parts Lists*



AG-6200

## AG-6200-E/B/EN/A

### SPECIFICATIONS

Power Source: 110/120/220/240V AC, 60/50Hz
Power Consumption: Approx. 60 watts
Television System: CCIR (625 lines, 50 fields)
PAL colour signal
EIA (525 Lines, 60 fields) 4.43MHz
modified NTSC colour signal
Video Recording System: 2 rotary heads, helical scanning system
Luminance: FM azimuth recording
Colour signal: converted subcarrier phase shift recording
Audio Track: 2 tracks
Tape Format: Tape width 12.7mm, high density tape
Tape Speed: 23.39mm/sec. (PAL)
33.35mm/sec. (modified NTSC)
Record/Playback Time: 180mim. with NV-E180 (PAL)
Playback Time: 120min. with NV-T120 (modified NTSC)
FF/REW Time: Less than 4.5min. with NV-E180
Heads: Video: 4 rotary heads
Audio/Control: 1 stationary head
Erase: 1 full track erase
1 audio track erase for audio dubbing
Input Level: Video: TV Monitor connector (8 pins)
1.0Vp-p, 75Ω unbalanced
VIDEO IN connector (BNC)
1.0Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
−20dB, 47kΩ unbalanced
MIC IN jack × 2
−73dB, 4.7kΩ unbalanced
LINE IN jack (Phono) × 2
−20dB, 47kΩ unbalanced
Time code: (Phono)
1.0Vp-p, 10kΩ unbalanced
Output Level: Video: TV Monitor connector (8 pins)
1.0Vp-p, 75Ω unbalanced
VIDEO OUT connector (BNC)
1.0Vp-p, 75Ω unbalanced
Audio: TV Monitor connector (8 pins)
0dB, 600Ω unbalanced
LINE OUT jack (Phono) × 2
−6dB, 600Ω unbalanced
AUDIO MONITOR OUT jack
(Phono) 0dB, 600Ω unbalanced
HEADPHONES jack
−20dB ~ −60dB, 8Ω
Time Code: (Phono)
2.4Vp-p, low impedance unbalanced
RF Modulated: Channel 0 or 1, 76 ± 3dBμ (open voltage), 75Ω unbalanced (AG-6200-A)
Video Horizontal Resolution: Colour: more than 240 lines
(on monoscope test pattern) B/W: more than 300 lines
Audio Frequency Response: 50 ~ 10,000Hz
Signal-to-Noise Ratio: Video: B/W: better than 43dB
Colour: better than 43dB
(Rohde & Schwarz noise meter)
Audio: better than 50dB
(Dolby NR IN)

(continued on Next Page.)

**Panasonic / National**

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

(continued from Cover Page.)

| | |
|---|---|
| Operating Temperature: | 5°C ~ 40°C |
| Operating Humidity: | 35% ~ 80% |
| Weight: | 13.0kg |
| Dimensions: | 430(W) × 392(D) × 158(H)mm |
| Accessories Supplied: | 1 pc. Dust cover<br>1 pc. Fan Bag.<br>1 pc. DIN-DIN Cable (AG-6200-A) |

| | |
|---|---|
| Optional Accessories: (Parts) | RF Converter Unit<br>ENC17571 (Europe)<br>ENC17572 (England)<br>ENC17506 (Asia)<br>Remote Controller AG-A600-E/EN<br>Rack-Mounting Frame AG-M600 |

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

## SPECIFICATIONS

| | |
|---|---|
| Power Source: | 110, 120, 220, 240V AC, 60/50Hz |
| Power Consumption: | Approx. 58 watts |
| Television System: | CCIR (625 lines, 50 fields)<br>PAL colour signal<br>EIA (525 lines, 60 fields) 4.43MHz modified NTSC colour signal |
| Video Playback System: | Helical scanning system |
| Recorded Video Signal: | Luminance: FM azimuth recording<br>Colour signal: converted subcarrier phase shift recording |
| Audio Track: | 2 tracks |
| Tape Format: | Tape width 12.7mm, high density tape |
| Tape Speed: | 23.39mm/sec. (PAL)<br>33.35mm/sec. (modified NTSC) |
| Playback Time: | 180min. with NV-E180 (PAL)<br>120min. with NV-T120 (modified NTSC) |
| FF/REW Time: | Less than 4.5min. with NV-E180 |
| Heads: | Video: 4 rotary heads<br>Audio/Control: 1 stationary head |
| Output Level: | Video: TV Monitor connector (8 pins) 1.0Vp-p, 75Ω unbalanced<br>VIDEO OUT connector (BNC) 1.0Vp-p, 75Ω unbalanced<br>Audio: TV Monitor connector (8 pins) 0dB, 600Ω unbalanced<br>LINE OUT jack (Phono) × 2 −6dB, 600Ω unbalanced<br>AUDIO MONITOR OUT jack (Phono) 0dB, 600Ω unbalanced<br>HEADPHONES jack −20dB ~ −60dB, 8Ω<br>RF Modulated: Channel 0 or 1, 76 ± 3dBμ (open voltage), 75Ω unbalanced (AG-6100-A) |

| | |
|---|---|
| Video Horizontal Resolution: (on monoscope test pattern) | Colour: more than 240 lines<br>B/W: more than 300 lines |
| Audio Frequency Response: | 50 ~ 10,000Hz |
| Signal-to-Noise Ratio: | Video: B/W: better than 43dB<br>Colour: better than 43dB<br>(Rohde & Schwarz noise meter)<br>Audio: better than 50dB (Dolby NR IN) |
| Operating Temperature: | 5°C ~ 40°C |
| Operating Humidity: | 35% ~ 80% |
| Weight: | 12.6kg |
| Dimensions: | 430(W) × 392(D) × 158(H)mm |
| Accessories Supplied: | 1 pc. Dust cover<br>1 pc. Fan Bag<br>1 pc. DIN-DIN Cable (AG-6100-A) |
| Optional Accessories: (Parts) | RF Converter Unit<br>ENC17571 (Europe)<br>ENC17572 (England)<br>ENC17506 (Asia)<br>Remote Controller AG-A600-E/EN<br>Rack-Mounting Frame AG-M600 |

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

### * FOR SECAM CAUTIONS:

1) In some areas, SECAM colour broadcasts can be recorded on the AG-6200, but such cassettes are not interchangeable with cassettes recorded on other PAL-VHS or FRENCH SECAM-VHS sets.
2) When cassettes recorded on the AG-6200 are played back on the FRENCH SECAM-VHS set, the playback is in black and white. Also, cassettes recorded on the FRENCH SECAM-VHS set, or FRENCH SECAM prerecorded cassettes may be played back in black and white on the AG-6200 and AG-6100.

# CONTENTS

SPECIFICATIONS (AG-6200, AG-6100) ............................... Cover

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  2. Moving Mechanism Section-(1) ................................. 4- 5
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  4. Front Loading Mechanism Section .............................. 4- 7
  5. Chassis Frame Section ........................................ 4- 8
  6. Casing Parts Section (AG-6200) ............................... 4- 9
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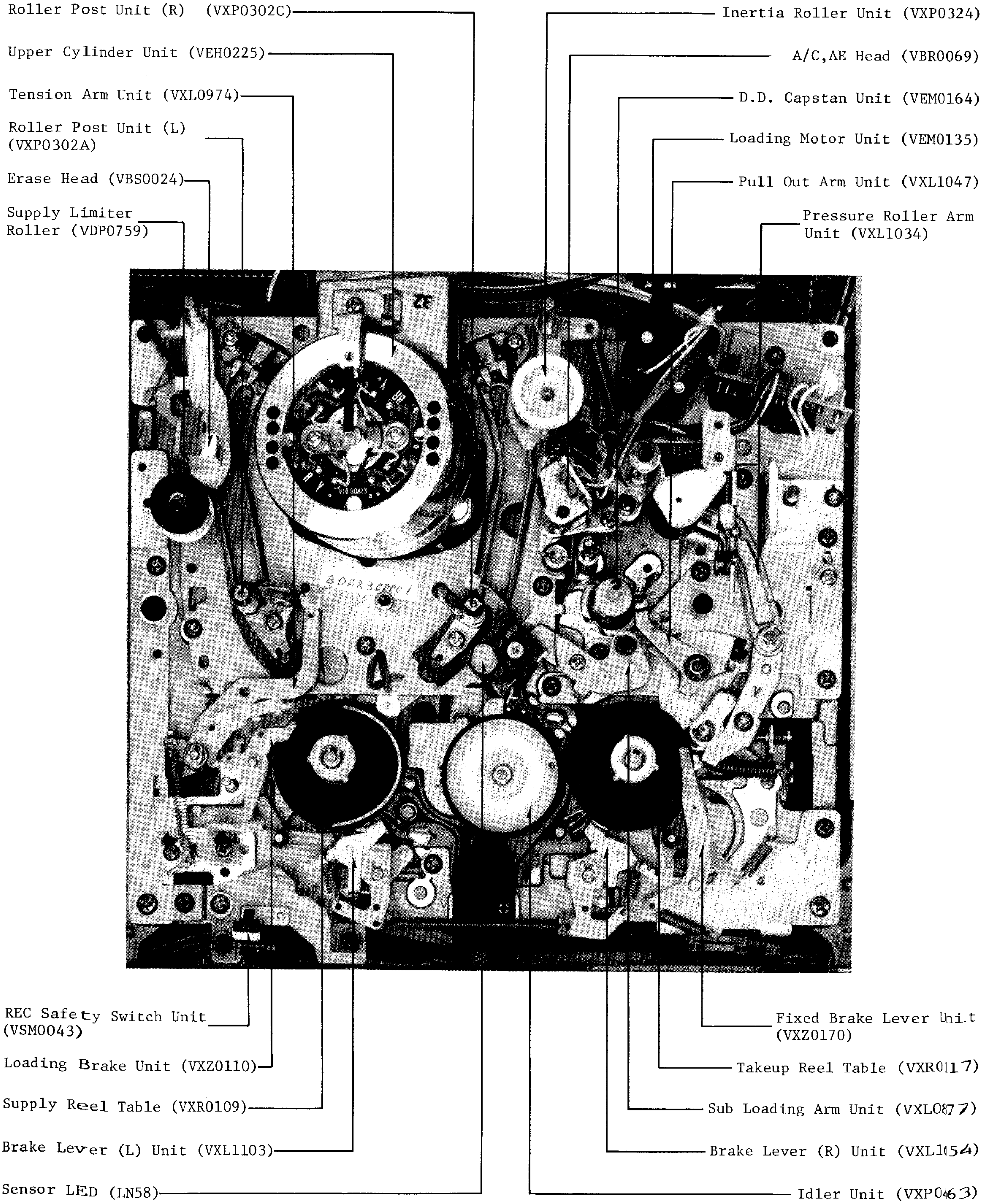
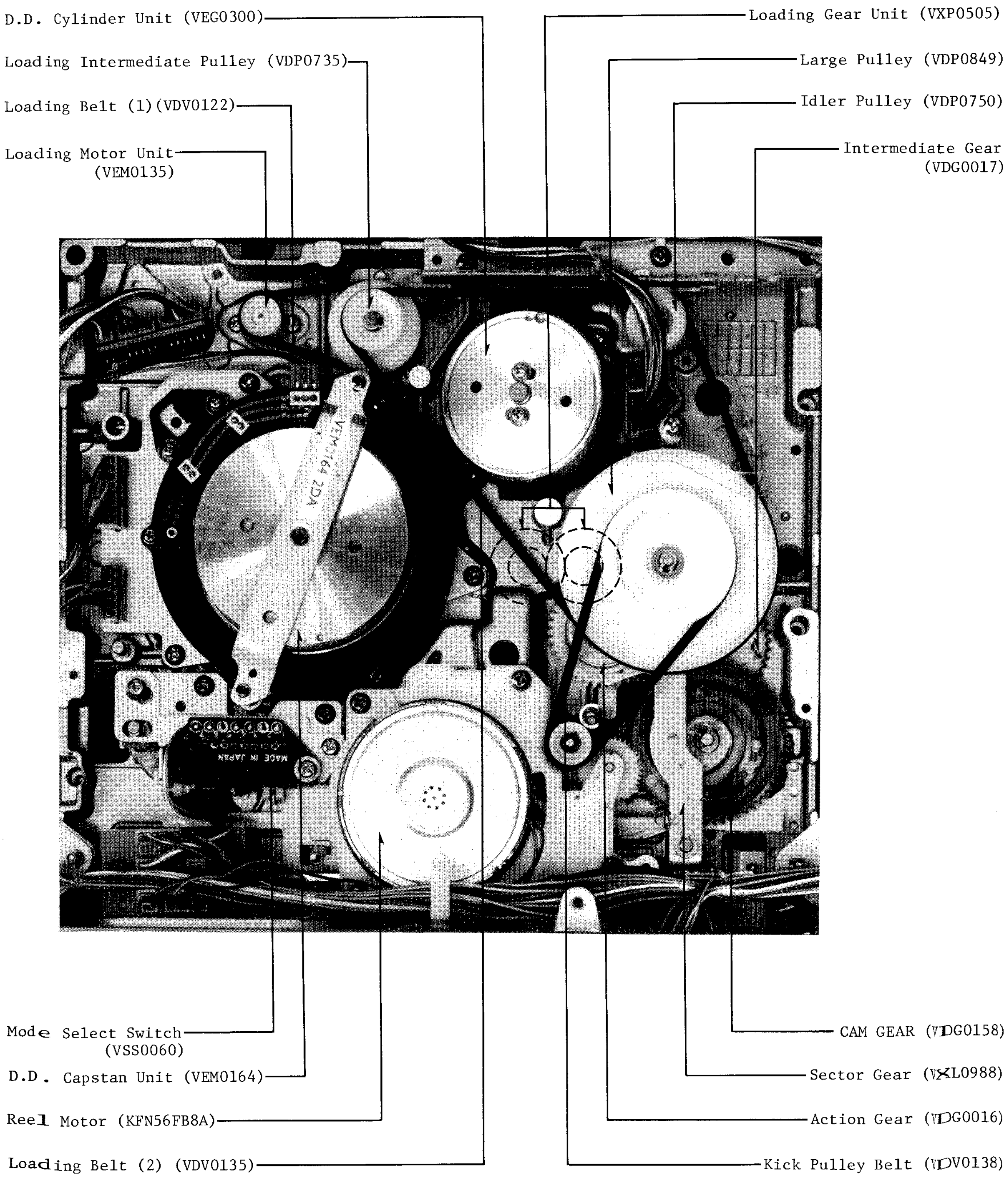
  Mechanical Replacement Parts list (AG-6200, AG-6100) .......... 4-12
  Electrical replacement parts List (AG-6200, AG-6100) .......... 4-15

# INNER PARTS LOCATION

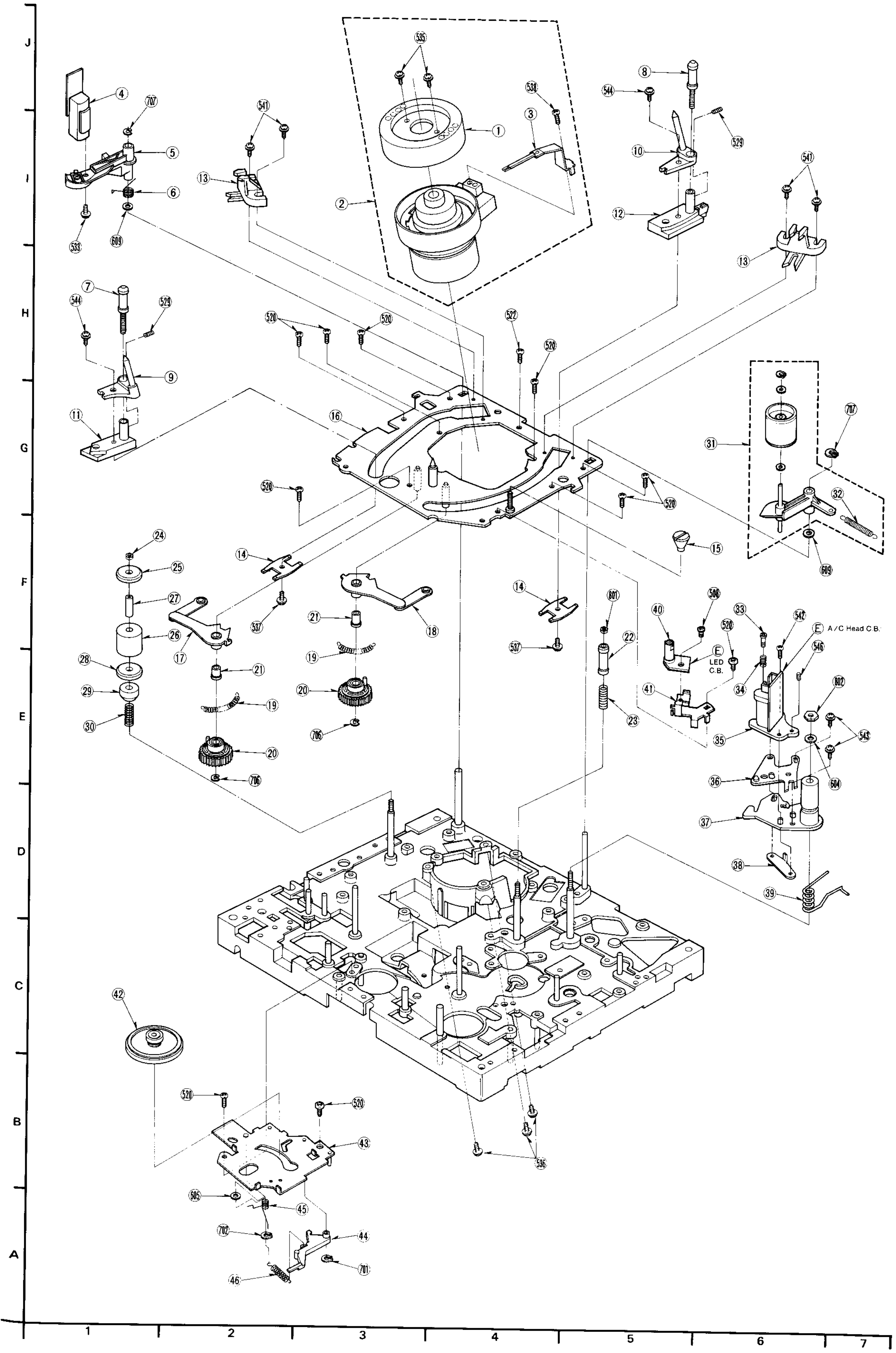
## TOP VIEW


Roller Post Unit (R) (VXP0302C)
Upper Cylinder Unit (VEH0225)
Tension Arm Unit (VXL0974)
Roller Post Unit (L) (VXP0302A)
Erase Head (VBS0024)
Supply Limiter Roller (VDP0759)
Inertia Roller Unit (VXP0324)
A/C,AE Head (VBR0069)
D.D. Capstan Unit (VEM0164)
Loading Motor Unit (VEM0135)
Pull Out Arm Unit (VXL1047)
Pressure Roller Arm Unit (VXL1034)
REC Safety Switch Unit (VSM0043)
Loading Brake Unit (VXZ0110)
Supply Reel Table (VXR0109)
Brake Lever (L) Unit (VXL1103)
Sensor LED (LN58)
Fixed Brake Lever Unit (VXZ0170)
Takeup Reel Table (VXR0117)
Sub Loading Arm Unit (VXL0877)
Brake Lever (R) Unit (VXL1054)
Idler Unit (VXP0463)

## BOTTOM VIEW


D.D. Cylinder Unit (VEG0300)
Loading Intermediate Pulley (VDP0735)
Loading Belt (1)(VDV0122)
Loading Motor Unit (VEM0135)
Loading Gear Unit (VXP0505)
Large Pulley (VDP0849)
Idler Pulley (VDP0750)
Intermediate Gear (VDG0017)
VEM0164 2DA
Mode Select Switch (VSS0060)
D.D. Capstan Unit (VEM0164)
Reel Motor (KFN56FB8A)
Loading Belt (2) (VDV0135)
CAM GEAR (VDG0158)
Sector Gear (VXL0988)
Action Gear (VDG0016)
Kick Pulley Belt (VDV0138)

# EXPLODED VIEWS ❶ *Transport Section*



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E A/C Head C.B.
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E LED C.B.
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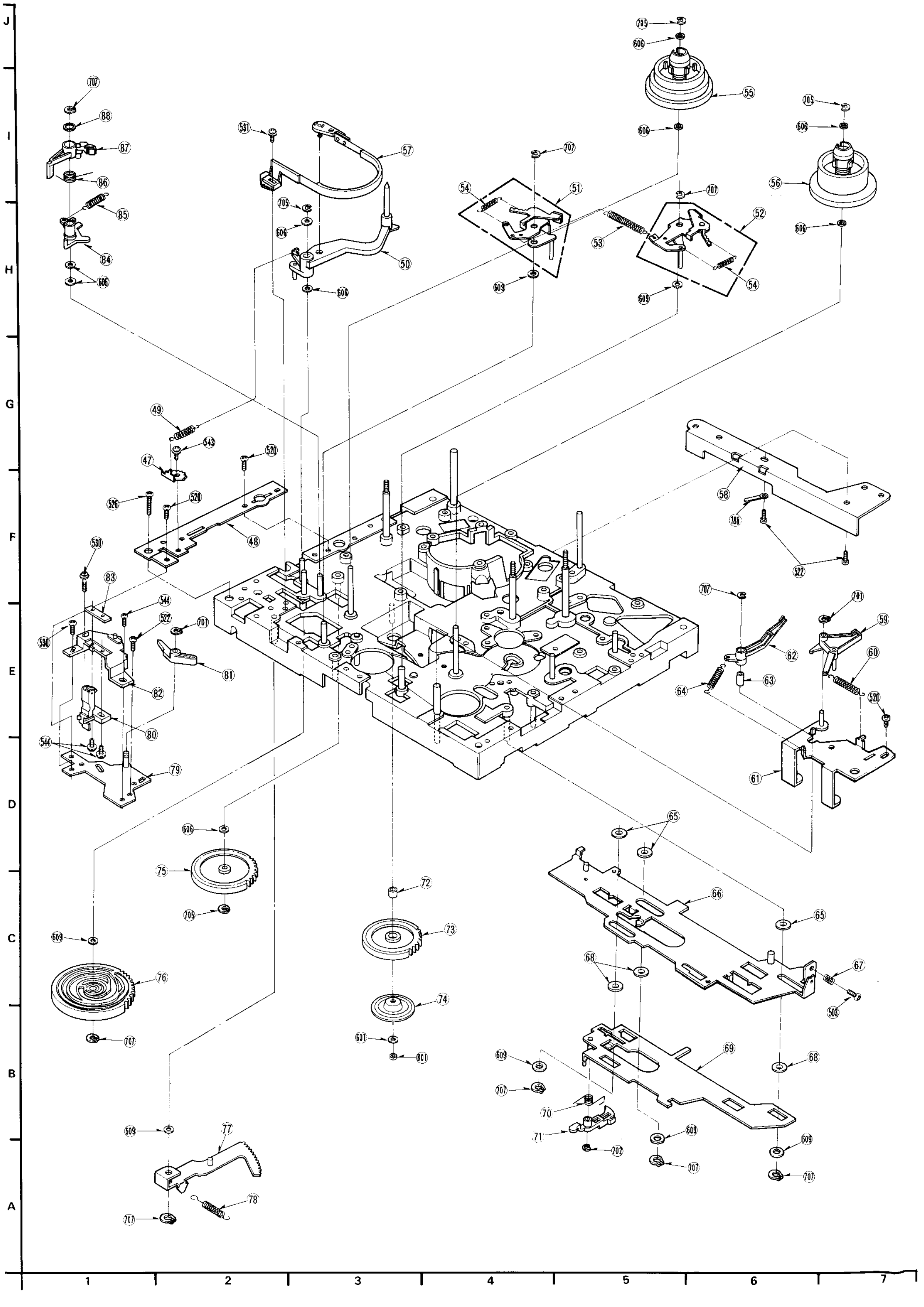
# ❷ *Moving Mechanism Section-(1)*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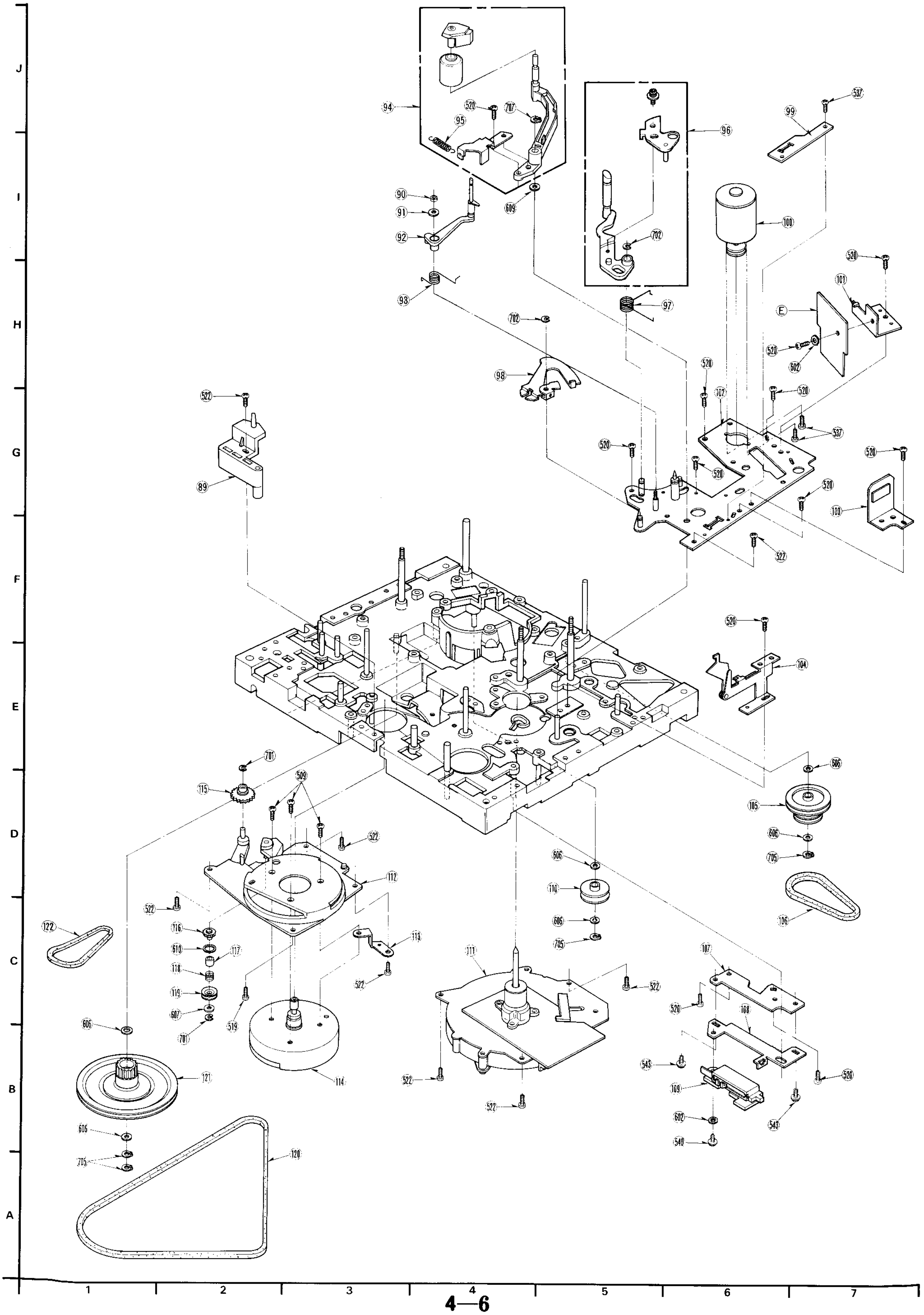
# ❸ *Moving Mechanism Section-(2)*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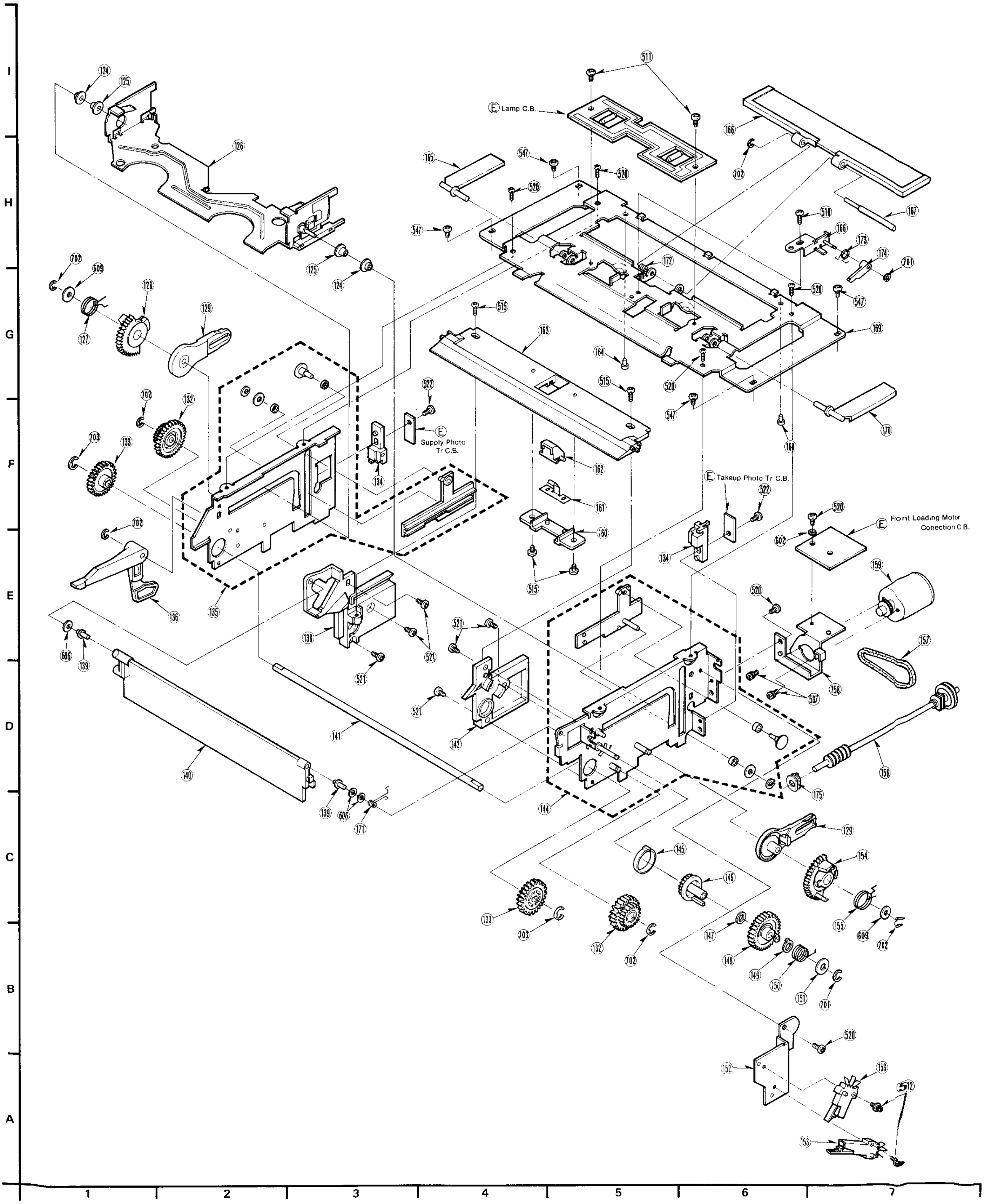
# ❹ Front Loading Mechanism Section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E Supply Photo Tr C.B.
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E Lamp C.B.
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E Takeup Photo Tr C.B.
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E Front Loading Motor Conection C.B.
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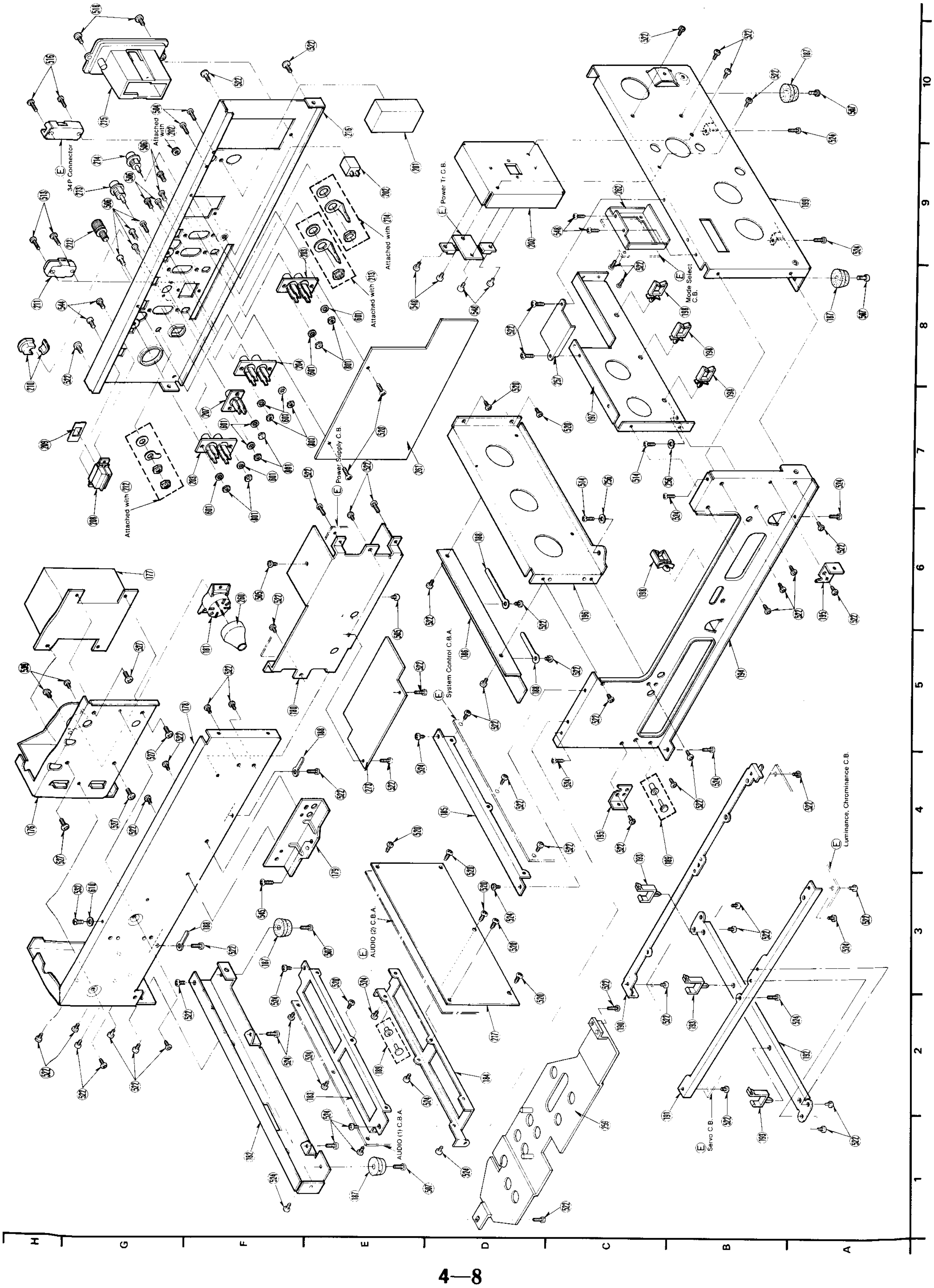
# ❺ Chassis Frame Section


34P Connector
Attached with 202
Attached with 212
Attached with 213
Attached with 214
Power Tr C.B.
Mode Select C.B.
Power Supply C.B.
System Control C.B.A.
AUDIO (2) C.B.A.
AUDIO (1) C.B.A.
Servo C.B.
Luminance, Chrominance C.B.
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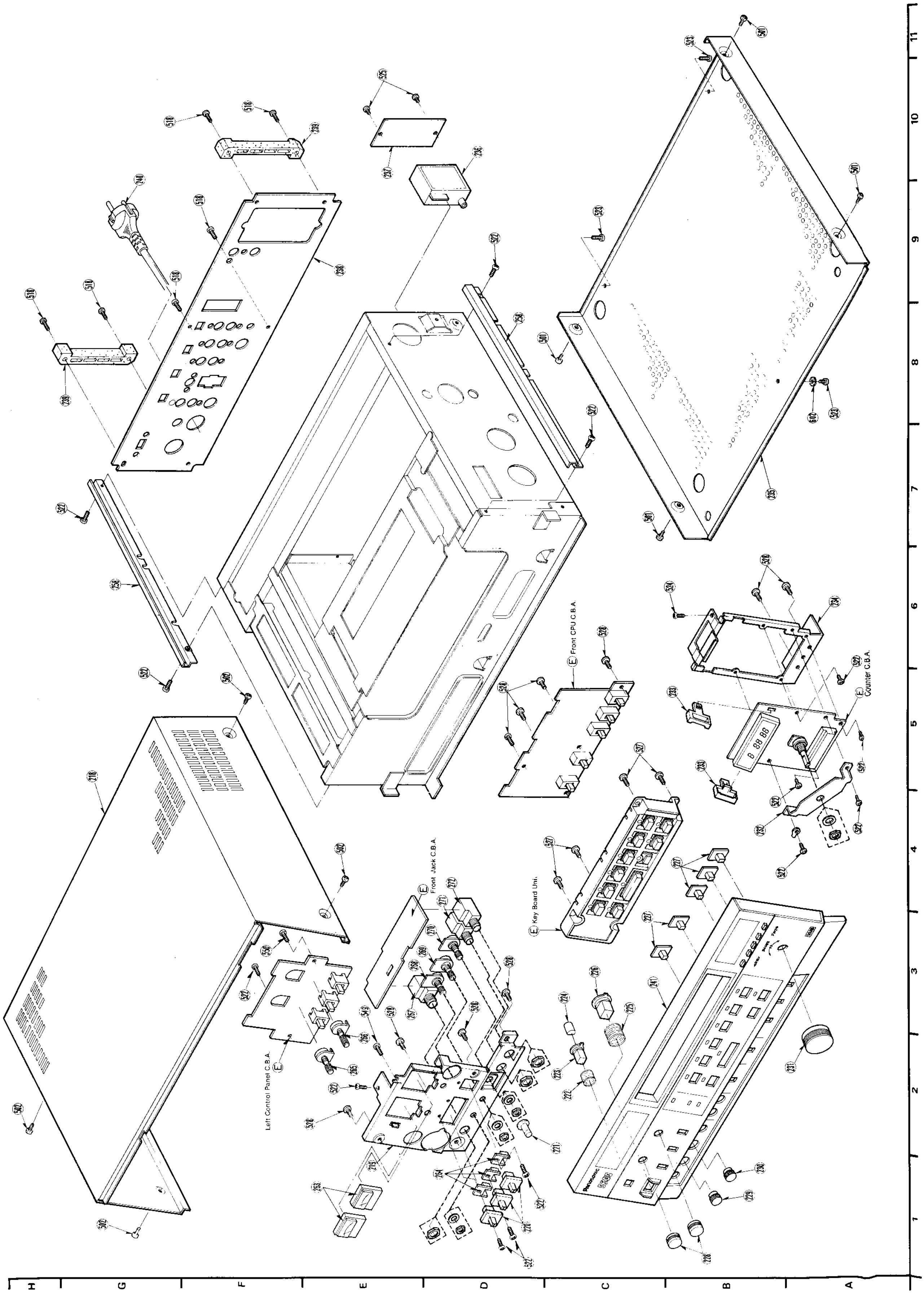
# ❻ *Casing Parts Section (AG-6200)*


Front CPU C.B.A.
Counter C.B.A.
Key Board Unit
Front Jack C.B.A.
Left Control Panel C.B.A.
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Panasonic
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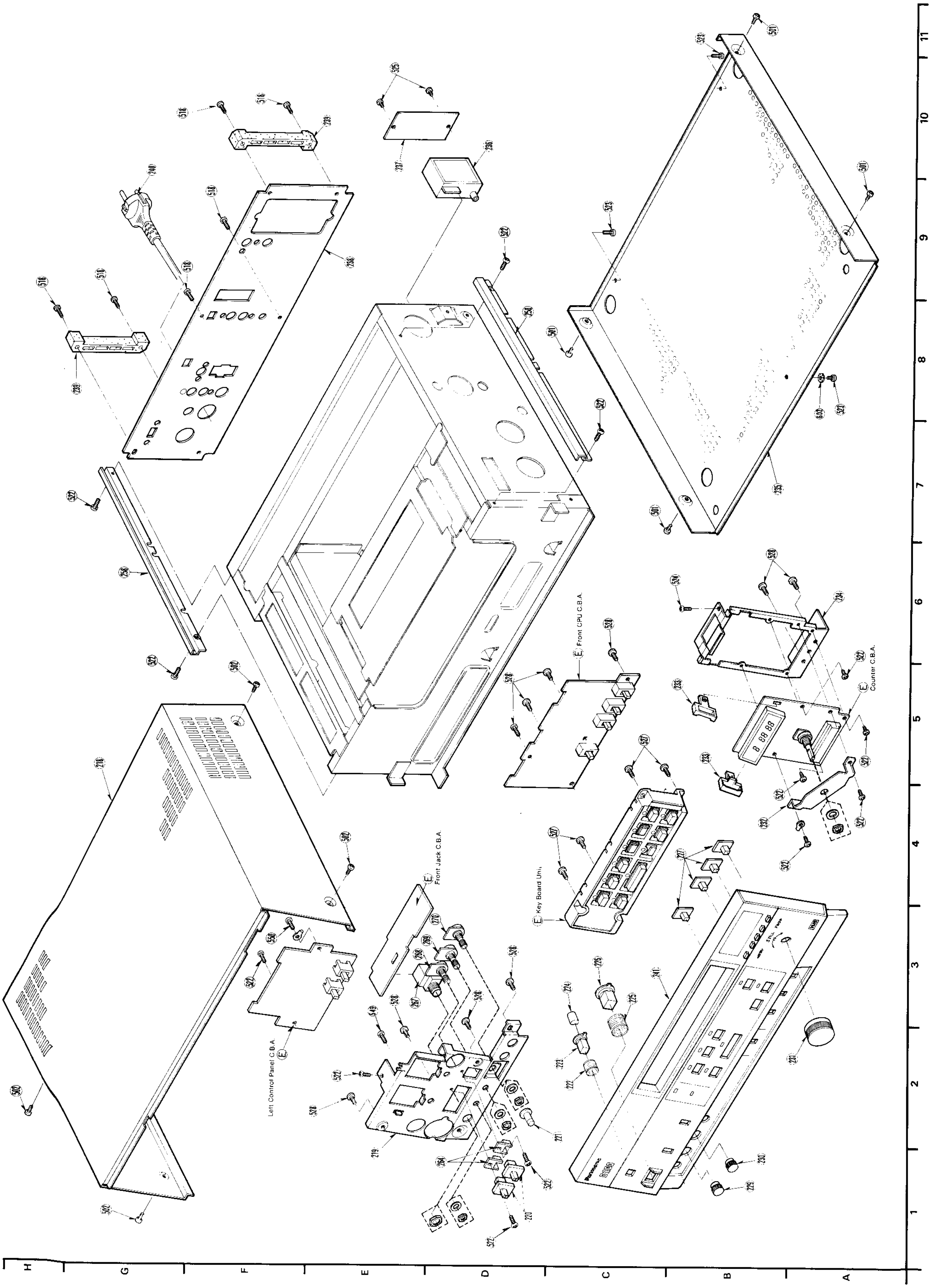
# ❻ *Casing Parts Section (AG-6100)*


501
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E Front CPU C.B.A.
526
E Counter C.B.A.
527
232
E Key Board Unit
231
241
225
224
223
222
221
230
229
E Front Jack C.B.A.
270
269
268
267
528
549
219
264
220
502
530
218
E Left Control Panel C.B.A.
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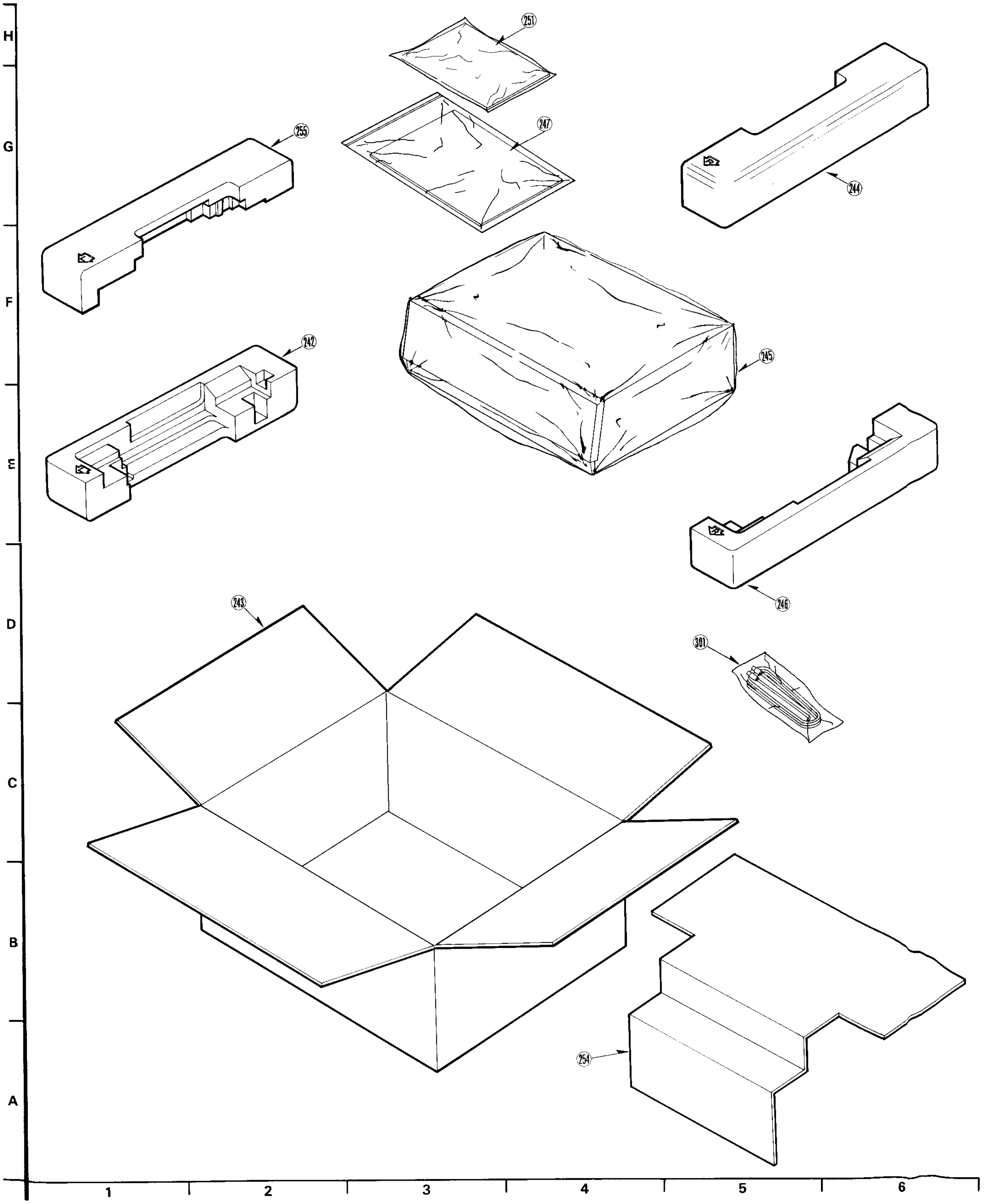
# ❼ *Packing Parts Section*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247
255
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242
245
246
243
301
254

# MECHANICAL REPLACEMENT PARTS LIST

## Model No. AG-6200-E/B/EN/A, AG-6100-E/B/EN/A

**Notes:**

1. * Be sure to make your orders of replacement parts according to this list.
2. * "®" in Remarks column indicates recommended parts.
3. IMPORTANT SAFETY NOTICE
   Components identified by ⚠ have special characteristics important for safety.
   When replacing any of these components, use only the original ones.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| 1(1) | | VEH0225 | Upper Cylinder Unit | 1 | ® |
| 2(1) | | VEG0300 | Cylinder Unit | 1 | ® |
| 3(1) | | VXA1584 | Slip Brush | 1 | |
| 4(1) | | VBS0024 | Erase Head | 1 | ® |
| 5(1) | | VML1370 | Erase Head Lever | 1 | |
| 6(1) | | VMB1005 | Erase Head Spring | 1 | |
| 7(1) | | VXP0302A | Roller Post Unit (L) | 1 | |
| 8(1) | | VXP0302C | Roller Post Unit (R) | 1 | |
| 9(1) | | VXA1191 | Inclind Base (S) Unit | 1 | |
| 10(1) | | VXA1084 | Inclind Base (B) Unit | 1 | |
| | | | | | |
| 11(1) | | VXA1189 | Shaft Holder (S) Unit | 1 | |
| 12(1) | | VXA1333 | Shaft Holder (T) Unit | 1 | |
| 13(1) | | VMD0100 | Post Stopper | 2 | |
| 14(1) | | VMA4436 | Shaft Holder Stopper (A) | 2 | |
| 15(1) | | VHN0014 | "X" Adjust Nut | 1 | |
| 16(1) | | VXA1334 | Loading Base (1) Unit | 1 | |
| 17(1) | | VXL0753 | Loading Arm (L) Unit | 1 | |
| 18(1) | | VXL0861 | Loading Arm (R) Unit | 1 | |
| 19(1) | | VMB0669 | Loading Spring | 2 | |
| 20(1) | | VXP0505 | Loading Gear Unit | 2 | |
| | | | | | |
| 21(1) | | VMX0257 | Arm Sleeve | 2 | |
| 22(1) | | VMX0280 | Post Sleeve | 1 | |
| 23(1) | | VMB0699 | P4 Spring | 1 | |
| 24(1) | | VHD0045 | Nut | 1 | |
| 25(1) | | VMX0297 | Upper Limiter | 1 | |
| 26(1) | | VDP0759 | Supply Limiter Roller | 1 | |
| 27(1) | | VMX0288 | Collar | 1 | |
| 28(1) | | VMX0456 | Lower Limiter (S) | 1 | |
| 29(1) | | VMX0571 | Lower Limiter Roller | 1 | |
| 30(1) | | VMB0754 | Supply Limiter Spring | 1 | |
| | | | | | |
| 31(1) | | VXP0324 | Inertia Roller Unit | 1 | |
| 32(1) | | VMB0667 | Inertia Roller Spring | 1 | |
| 33(1) | | VHD0054 | Adjust Screw, A/C Head | 1 | |
| 34(1) | | VMB0404 | Adjust Spring, A/C Head | 1 | |
| 35(1) | | VBR0069 | A/C Head | 1 | ® |
| 36(1) | | VXA1990 | A/C Head Base Unit | 1 | |
| 37(1) | | VXA1438 | A/C Head Base (B) Unit | 1 | |
| 38(1) | | VMA4289 | Bar Nut | 1 | |
| 39(1) | | VMB0997 | A/C Head Height Spring | 1 | |
| 40(1) | | VMD0145 | LED Holder | 1 | |
| | | | | | |
| 41(1) | | VMA4795 | LED Holder Angle | 1 | |
| 42(1) | | VXP0463 | Idler Unit | 1 | ® |
| 43(1) | | VXA1895 | Reel Sensor Base (1) Unit | 1 | |
| 44(1) | | VML1433 | Idler Stopper Lever | 1 | |
| 45(1) | | VMB1083 | Idler Spring | 1 | |
| 46(1) | | VMB0882 | Idler Stopper Spring | 1 | |
| 47(2) | | VMA5813 | Adjust Hook | 1 | |
| 48(2) | | VMA6052 | Position Plate | 1 | |
| 49(2) | | VMB1114 | Tension Spring | 1 | |
| 50(2) | | VXL0974 | Tension Arm Unit | 1 | |
| 51(2) | | VXL1103 | Brake Lever (L) Unit | 1 | ® |
| 52(2) | | VXL1054 | Brake Lever (R) Unit | 1 | ® |
| 53(2) | | VMB0661 | Brake Spring | 1 | |
| 54(2) | | VMB0660 | Brake Arm Spring | 2 | |
| 55(2) | | VXR0109 | Supply Reel Table Unit | 1 | ® |
| 56(2) | | VXR0117 | Takeup Reel Table Unit | 1 | ® |
| 57(2) | | VXZ0129 | Tension Band Unit | 1 | ® |
| 58(2) | | VMA4406 | Chassis Bracket | 1 | |
| 59(2) | | VXL0873 | Soft Brake (T) Unit | 1 | ® |
| 60(2) | | VMB1211 | Soft Brake Spring | 1 | |
| | | | | | |
| 61(2) | | VXA1855 | Position Plate | 1 | |
| | | | (Rear, Right) | | |
| 62(2) | | VXZ0170 | Fixed Tension Brake Unit | 1 | |
| 63(2) | | VMX0367 | Fixed Brake Sleeve | 1 | |
| 64(2) | | VMB0886 | Fixed Brake Spring | 1 | |
| 65(2) | | VMX0308 | Slide Washer | 3 | |
| 66(2) | | VXL1104 | Main Lever (1) Unit | 1 | |
| 67(2) | | VMB0680 | Adjust Spring | 1 | |
| 68(2) | | VMX0471 | Slide Washer | 3 | |
| 69(2) | | VXL1106 | Sub Lever (1) Unit | 1 | |
| 70(2) | | VMB0890 | Kick Lever Spring | 1 | |
| | | | | | |
| 71(2) | | VML1432 | Kick Lever | 1 | |
| 72(2) | | VMX0268 | Action Gear Sleeve | 1 | |
| 73(2) | | VDG0016 | Action Gear | 1 | |
| 74(2) | | VMA4088 | Action Gear Holder | 1 | |
| 75(2) | | VDG0017 | Intermediate Gear | 1 | |
| 76(2) | | VDG0158 | Cam Gear | 1 | |
| 77(2) | | VXL0988 | Sector Gear | 1 | |
| 78(2) | | VMB0860 | Sub Lever Spring | 1 | |
| 79(2) | | VXA1934 | Brake Release Base Unit | 1 | |
| 80(2) | | VSM0043 | Safety Tab Switch | 1 | AG-6200 only ® |
| | | | | | |
| 81(2) | | VXL0875 | Soft Brake Release Unit | 1 | |
| 82(2) | | VMA6302 | Cassette Support Angle | 1 | |
| 83(2) | | VMA5372 | Nut Plate | 1 | AG-6200 only |
| 84(2) | | VML1258 | Soft Brake Lever A | 1 | |
| 85(2) | | VMB0885 | Soft Brake Spring | 1 | |
| 86(2) | | VMB1210 | Soft Brake Coil Spring | 1 | |
| 87(2) | | VXZ0110 | Loading Brake Arm Unit | 1 | ® |
| 88(2) | | VMX0249 | Soft Brake Stopper | 1 | |
| 89(3) | | VMD0442 | Brake Release Bracket | 1 | |
| 90(3) | | VHN0023 | Nylon Nut | 1 | |
| | | | | | |
| 91(3) | | VMX0558 | P5 Washer | 1 | |
| 92(3) | | VXL1047 | Pull Out Arm Unit | 1 | |
| 93(3) | | VMB0891 | P5 Arm Spring | 1 | |
| 94(3) | | VXL1034 | Pressure Roller Arm Unit | 1 | ® |
| 95(3) | | VMB0880 | Pressure Roller Arm Spring | 1 | |
| 96(3) | | VXL0877 | Sub Loading Arm Unit | 1 | |
| 97(3) | | VMB0889 | Sub Loading Arm Spring | 1 | |
| 98(3) | | VML1554 | Action Lever | 1 | |
| 99(3) | | VMA6224 | Position Plate, | 1 | |
| | | | (Right, Front) | | |
| 100(3) | | VEM0135 | Loading Motor Unit | 1 | ⚠ ® |
| | | | | | |
| 101(3) | | VMA6059 | Wiring Board Angle | 1 | |
| 102(3) | | VXA1436 | P5 Post Base Unit | 1 | |
| 103(3) | | VEK1293 | Dew Sensor Unit | 1 | ® |
| 104(3) | | VXA1953 | Opener Unit | 1 | |
| 105(3) | | VDP0735 | Loading Intermediate | 1 | ® |
| | | | Pulley | | |
| 106(3) | | VDV0122 | Loading Belt (1) | 1 | ® |
| 107(3) | | VMA6057 | Mode Select Switch Angle | 1 | |
| | | | (B) | | |
| 108 | | VMA6056 | Mode Select Switch Angle | 1 | |
| | | | (A) | | |
| 109(3) | | VSS0060 | Mode Select Switch | 1 | ® |
| 110(3) | | VDP0750 | Idler Pulley | 1 | ® |
| | | | | | |
| 111(3) | | VEM0164 | DD Capstan Motor | 1 | ® |
| 112(3) | | VXA1708 | Reel Motor Bracket Unit | 1 | |
| 113(3) | | VMA6055 | Earth Angle | 1 | |
| 114(3) | | KFN56FB8A | Reel Motor | 1 | ⚠ ® |
| 115(3) | | VDG0080 | Kick Gear | 1 | |
| 116(3) | | VDG0081 | Clutch Gear | 1 | |
| 117(3) | | VMX0405 | Clutch Collar | 1 | |
| 118(3) | | VMB0897 | Clutch Spring | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| 119(3) | | VDP0850 | Clutch Pulley | 1 | ® |
| 120(3) | | VDV0135 | Loading Betl (2) | 1 | ® |
| | | | | | |
| 121(3) | | VDP0849 | Loading Pulley | 1 | ® |
| 122(3) | | VDV0138 | Kick Pulley Belt | 1 | ® |
| | | | | | |
| 124(4) | | VDP0944 | Wiper Roller (S) | 2 | |
| 125(4) | | VDP0918 | Cassette Holder Roller (S) | 2 | |
| 126(4) | | VXA1789 | Cassette Holder Unit | 1 | |
| 127(4) | | VMB1089 | Wiper Spring (L) | 1 | |
| 128(4) | | VDG0115 | Wiper Gear (L) | 1 | |
| 129(4) | | VML1436 | Wiper Arm | 2 | |
| | | | | | |
| | | | | | |
| | | | | | |
| 132(4) | | VDG0120 | Intermediate Gear | 2 | |
| 133(4) | | VDG0119 | Shaft Gear | 2 | |
| 134(4) | | VMD0091 | Photo Tr Holder | 2 | |
| 135(4) | | VXA1793 | Side Plate (L) Unit | 1 | |
| 136(4) | | VML1437 | Front Opener Link | 1 | |
| | | | | | |
| 138(4) | | VMD0449 | Front Guide (L) | 1 | |
| 139(4) | | VMS2350 | Blinder Panel Shaft | 2 | |
| 140(4) | | VKF0303 | Blinder Panel | 1 | FOR AG-6200 ® |
| | | | | | |
| 140(4) | | VKF0304 | Blinder Panel | 1 | FOR AG-6100 ® |
| 141(4) | | VMS2304 | Main Shaft | 1 | |
| 142(4) | | VMD0459 | Front Guide (R) | 1 | |
| | | | | | |
| 144(4) | | VXA1792 | Side Plate (R) Unit | 1 | |
| 145(4) | | VMD0456 | Stopper Ring | 1 | |
| 146(4) | | VDG0118 | Clutch Gear | 1 | |
| 147(4) | | VMX0531 | Clutch Spacer | 1 | |
| 148(4) | | VDG0117 | Warm Wheel | 1 | |
| 149(4) | | VMD0566 | Clutch Stopper | 1 | |
| | | | | | |
| 150(4) | | VMB1093 | Clutch Spring | 1 | |
| 151(4) | | VMX0530 | Clutch Washer | 1 | |
| 152(4) | | VMA6221 | Switch Angle | 1 | |
| 153(4) | | VSM0046 | Switch | 2 | ® |
| 154(4) | | VDG0116 | Wiper Gear (R) | 1 | |
| 155(4) | | VMB1090 | Wiper Spring (R) | 1 | |
| 156(4) | | VXA1954 | Pulley Shaft Unit | 1 | |
| 157(4) | | VDV0144 | Loading Belt | 1 | ® |
| 158(4) | | VMA6193 | Front Loading Motor Panel | 1 | |
| 159(4) | | MXN12AE10C | Front Loading Motor | 1 | ⚠ ® |
| | | | | | |
| 160(4) | | VMD0454 | Spring Holder | 1 | |
| 161(4) | | VMB1091 | Safety Tab Spring | 1 | |
| 162(4) | | VMD0453 | Safety Tab Knob | 1 | |
| 163(4) | | VMD0452 | Cassette Guide | 1 | |
| 164(4) | | VMG0308 | Cassette Stopper | 2 | |
| 165(4) | | VMD0492 | Mirror Drive Panel (L) | 1 | |
| 166(4) | | VXA1795 | Mirror Unit | 1 | |
| 167(4) | | VMS2342 | Mirror Shaft | 1 | |
| 169(4) | | VMA6197 | Top Plate | 1 | |
| 170(4) | | VMD0491 | Mirror Drive Panel (R) | 1 | |
| | | | | | |
| 171(4) | | VMB1171 | Blinder Spring | 1 | |
| 172(4) | | VMB1125 | Mirror Spring | 1 | |
| 175(4) | | VDB0660 | Warm Shaft Bearing | 1 | |
| 176(5) | | VMA6294 | Power Transformer Angle | 1 | |
| 177(5) | | VTP0098 | Power Transformer | 1 | ⚠ ® |
| 178(5) | | VMP0315 | Center Frame (Side) | 1 | |
| 179(5) | | VMP0323 | Chassis Angle | 1 | |
| 180(5) | | VSC0976 | Heat Sink (A) | 1 | |
| 181(5) | | ESE37212 | Voltage Selector | 1 | ⚠ ® |
| 182(5) | | VXA1932 | Left Frame Unit | 1 | |
| | | | | | |
| 183(5) | | VMP0330 | Audio Board Angle (T) | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| 184(5) | | VMP0331 | Audio Board Angle (B) | 1 | |
| 185(5) | | VMP0326 | System Control Board | 1 | |
| | | | Angle (T) | | |
| 186(5) | | VMP0327 | System Control Board | 1 | |
| | | | Angle (B) | | |
| 187(5) | | VMG0172 | Rubber Cushion | 2 | |
| 188(2,5) | | VJR3 | Clamper | 6 | |
| 189(5) | | VDB0358 | Hook | 2 | |
| 190(5) | | VMP0318 | Servo Board Angle (R) | 1 | |
| 191(5) | | VMP0316 | Servo Board Angle (F) | 1 | |
| 192(5) | | VMP0317 | Servo Board Angle (C) | 1 | |
| | | | | | |
| 193(5) | | VJF0045 | Wire Clamper | 3 | |
| 194(5) | | VMP0322 | Front Frame | 1 | |
| 195(5) | | VMP0312 | Top Cover Angle | 2 | |
| 196(5) | | VMP0320 | Center Frame (Left) | 1 | |
| 197(5) | | VMP0321 | Center Frame (Right) | 1 | |
| 198(5) | | VJF0004 | Wire Saddle | 4 | |
| 199(5) | | VXA1931 | Right Frame Unit | 1 | |
| 200(5) | | VSC0984 | Heat Sink (B) | 1 | |
| 201(5) | | ENPE771 | Antenna Terminal | 1 | (E) only |
| 201(5) | | ENPE772 | Antenna Terminal | 1 | (B) only |
| | | | | | |
| 201(5) | | ENPE774 | Antenna Terminal | 1 | (EN,A) only |
| 202(5) | | VJJ0041 | Camera Remote Connector | 1 | AG-6200 only |
| 203(5) | | VJJ0081 | Phone Jack (A) | 1 | |
| 204(5) | | VJJ0081 | Phone Jack (A) | 1 | AG-6200 only |
| | | | | | |
| | | | | | |
| 207(5) | | VJJ0082 | Phone Jack (B) | 1 | |
| 208(5) | | EST15707V | Primary Power Switch | 1 | ⚠ ® |
| 209(5) | | VGF0093 | Primary Switch Cover | 1 | |
| 210(5) | | VDE0293 | AC Cord Bushing | 1 | ⚠ ® |
| 211(5) | | VJS1037 | 8P Connector | 1 | |
| 212(5) | | VJH0082 | Terminal (GND) | 1 | |
| | | | | | |
| 213(5) | | VJS1087 | BNC Connector | 1 | |
| 214(5) | | VJS1087 | BNC Connector | 1 | AG-6200 only |
| 215(5) | | VGQ0466 | RF Converter Angle | 1 | |
| 216(5) | | VMP0319 | Rear Jack Panel (1) | 1 | AG-6200 only |
| 217(5) | | VSC0994 | Shield Plate | 1 | |
| 218(6) | | VYP0941 | Top Cover Unit | 1 | |
| 219(6) | | VMP0313 | Left Control Board Angle | 1 | |
| 220(6) | | VGT0334 | Slide Switch Knob (A) | 3 | FOR AG-6200 ® |
| 220(6) | | VGT0334 | Slide Switch Knob (A) | 2 | FOR AG-6100 ® |
| 221(6) | | VGT0341 | Slow Tracking Knob | 1 | ® |
| | | | | | |
| 222(6) | | VMB0738 | Button Spring (A) | 1 | (EN,A) only |
| 223(6) | | VGT0339 | TV/VTR Button | 1 | (EN,A) only ® |
| 224(6) | | VGQ0492 | Switch Sub Knob | 1 | (EN,A) only ® |
| 225(6) | | VMB0905 | Button Spring (B) | 1 | |
| 226(6) | | VGU0272 | Power Switch Button | 1 | ® |
| 227(6) | | VGT0335 | Slide Switch Knob (B) | 5 | FOR AG-6200 ® |
| 227(6) | | VGT0335 | Slide Switch Knob (B) | 4 | FOR AG-6100 ® |
| 228(6) | | VGT0227 | Audio Level Knob | 2 | ® |
| 229(6) | | VGT0131 | Headphone Level Knob | 1 | ® |
| 230(6) | | VGT0131 | Tracking Knob | 1 | ® |
| | | | | | |
| 231(6) | | VGU0858 | Speed Control Knob | 1 | ® |
| 232(6) | | VMA6295 | Search VR Angle | 1 | |
| 233(6) | | VGQ0301 | Display Tube Holder | 2 | |
| 234(6) | | VMP0314 | Counter Board Angle | 1 | |
| 235(6) | | VKU0189 | Bottom Cover | 1 | |
| 236(6) | | ENC17505 | RF Converter | 1 | (A) only ® |
| 237(6) | | VKF0309 | RF Converter Panel | 1 | (E,B,EN) only |
| 237(6) | | VKF0310 | RF Converter Panel | 1 | (A) only |
| 238(6) | | VGH0086 | Decorative Jack Panel | 1 | FOR AG-6200 |
| 238(6) | | VGH0087 | Decorative Jack Panel | 1 | FOR AG-6100 |
| | | | | | |
| 239(6) | | VKA0034 | Rubber Foot | 2 | |

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| 240 (6) |  | VJA0169 | AC Power Cord | 1 | (E,EN) only ⚠ ® |
| 240 (6) |  | VJA0074 | AC Power Cord | 1 | (B) only ⚠ ® |
| 240 (6) |  | VJA0087 | AC Power Cord | 1 | (A) only ⚠ ® |
| 241 (6) |  | VYP0887 | Front Panel (1) Unit | 1 | ® FOR AG-6200 (EN,A)only |
| 241 (6) |  | VYP0888 | Front Panel (1) Unit | 1 | ® FOR AG-6200 (E,B) only |
| 241 (6) |  | VYP0891 | Front Panel (1) Unit | 1 | ® FOR AG-6100 (EN,A)only |
| 241 (6) |  | VYP0892 | Front Panel (1) Unit | 1 | ® FOR AG-6100 (E,B) only |
| 242 (7) |  | VPN0921 | Cushion (Left, Bottom) | 1 |  |
| 243 (7) |  | VPG1528 | Packing Case | 1 | FOR AG-6200 (E) only |
| 243 (7) |  | VPG1529 | Packing Case | 1 | FOR AG-6200 (EN) only |
| 243 (7) |  | VPG1530 | Packing Case | 1 | FOR AG-6200 (A) only |
| 243 (7) |  | VPG1531 | Packing Case | 1 | FOR AG-6200 (B) only |
| 243 (7) |  | VPG1532 | Packing Case | 1 | FOR AG-6100 (E) only |
| 243 (7) |  | VPG1533 | Packing Case | 1 | FOR AG-6100 (EN) only |
| 243 (7) |  | VPG1534 | Packing Case | 1 | FOR AG-6100 (A) only |
| 243 (7) |  | VPG1535 | Packing Case | 1 | FOR AG-6100 (B) only |
| 244 (7) |  | VPN0920 | Cushion (Right, Top) | 1 |  |
| 245 (7) |  | VPF0114 | Polyethylene Bag | 1 |  |
| 246 (7) |  | VPN0922 | Cushion (Right, Bottom) | 1 |  |
| 247 (7) |  | VQF1139 | Fan Bag | 1 | FOR AG-6200 (E) only |
| 247 (7) |  | VQF1140 | Fan Bag | 1 | FOR AG-6200 (EN,A,B) |
|  |  |  |  |  | only |
| 247 (7) |  | VQF1143 | Fan Bag | 1 | FOR AG-6100 (E) only |
| 247 (7) |  | VQF1144 | Fan Bag | 1 | FOR AG-6100 (EN,A,B) |
|  |  |  |  |  | only |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| 251 (7) |  | VFB0048 | Dust Cover | 1 | (E,B) only |
| 251 (7) |  | VFB0049 | Dust Cover | 1 | (EN,A) only |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| 254 (7) |  | VPN0942 | Accessory Pad | 1 |  |
| 255 (7) |  | VPN0919 | Cushion (Left, Top) | 1 |  |
| 256 (5) |  | VMX0508 | Chassis Washer | 2 |  |
| 257 (5) |  | VMP0409 | Support Angle | 1 |  |
| 258 (6) |  | VXA2014 | Top Cover Support Angle | 2 |  |
| 259 (5) |  | VGF0108 | Chassis Bottom Cover | 1 |  |
| 260 (5) |  | VMX0235 | Voltage Select Cover | 1 | ⚠ |
| 261 (5) |  | VMZ0570 | Rear Jack Plate Cover | 1 |  |
| 262 (5) |  | VMP0414 | Mode Select Angle | 1 |  |
| 263 (6) |  | VSE0052 | Audio Level Meter | 2 | AG-6200 only ® |
| 264 (6) |  | VGQ0559 | Switch Angle | 3 | AG-6200 only |
| 264 (6) |  | VGQ0559 | Switch Angle | 2 | AG-6100 only |
| 265 (6) |  | EVHRPA387B14 | CH1 Audio Level VR | 1 | AG-6200 only ® |
| 266 (6) |  | EVHRPA387B14 | CH2 Audio Level VR | 1 | AG-6200 only ® |
| 267 (6) |  | VJJ0094 | Headphone Jack | 1 | ® |
| 268 (6) |  | EWKH1AY15B14 | Headphone VR | 1 | ® |
| 269 (6) |  | EWHH1AY15B15 | Tracking VR | 1 | ® |
| 270 (6) |  | EWHH1AY15B15 | Slow Tracking VR | 1 | ® |
| 271 (6) |  | VJJ0084 | CH1 Mic Jack | 1 | AG-6200 only |
| 272 (6) |  | VJJ0084 | CH2 Mic Jack | 1 | AG-6200 only |
| 273 (6) |  | VSC1114 | Shield Plate | 1 |  |
|  |  |  |  |  |  |
| 301 (7) |  | VJA0130C | DIN-DIN Cord | 1 | (A) only ® |

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Screws |  |  |
| 501(6) |  | XSN4+8BVS |  | 4 |  |
| 502(6) |  | XSBV0007 |  | 4 |  |
| 503(2) |  | XSN3+10S |  | 1 |  |
| 504(5) |  | XSN3+6BVS |  | 2 |  |
| 505(5) |  | XSN3+8BNS |  | 2 |  |
| 506(5) |  | XSN3+8BVS |  | 8 |  |
| 507(5) |  | XSN4+16S |  | 4 |  |
| 508(1) |  | XSS26+4 |  | 1 |  |
| 509(3) |  | XSS3+4S |  | 3 |  |
| 511(4) |  | XST3+5RS |  | 2 |  |
|  |  |  |  |  |  |
| 512(4) |  | XTN2+8F |  | 2 |  |
| 513(5) |  | XTN26+10F |  | 2 |  |
| 514(5) |  | XTN4+30F |  | 2 |  |
| 515(4) |  | XTS3+8JFZ |  | 4 |  |
| 516(5) |  | XTV26+8F |  | 2 |  |
| 517(3) |  | XTV3+10BFN |  | 1 |  |
| 518(5,6) |  | XTV3+1010BFZ |  | 8 |  |
| 519(3) |  | XTV3+10J |  | 1 |  |
| 520(1,2,3,4,5) |  | XTV3+6BFN |  | 35 |  |
| 521(4) |  | XTV3+6BFN |  | 6 |  |
|  |  |  |  |  |  |
| 522(1,2,3,4 |  | XTV3+8BFN |  | 97 |  |
| 5,6) |  |  |  |  |  |
| 523(6) |  | XTV3+8FFZ |  | 3 |  |
| 524(5,6) |  | XTV3+8BFN |  | 23 |  |
| 525(6) |  | XTV3+8JZ |  | 2 |  |
| 526(2) |  | XTV4+30F |  | 1 |  |
| 527(5) |  | XTV4+10J |  | 4 |  |
| 528(6) |  | XTV4+8XTV4+8BFN |  | 15 |  |
| 529(1) |  | XXEV2D25FP |  | 2 |  |
| 530(2) |  | XYE3+BF18 |  | 1 |  |
| 531(2) |  | XYE3+EF8 |  | 1 |  |
|  |  |  |  |  |  |
| 532(5) |  | XYE4+EF6 |  | 1 |  |
| 533(1) |  | XSN2+5 | Screw | 1 |  |
| 533(1) |  | XWA2B | Spring Washer | 1 |  |
| 534(2) |  | XSN2+8 | Screw | 2 |  |
| 534(2) |  | XWA2B | Spring Washer | 2 |  |
| 535(1) |  | XSN3+10BNS | Screw | 2 |  |
| 535(1) |  | XWG3BW | Washer | 2 |  |
| 536(1) |  | XSN3+10S | Screw | 3 |  |
| 536(1) |  | XWA3B | Spring Washer | 3 |  |
| 537(1,3,4) |  | XSN3+4S | Screw | 7 |  |
|  |  |  |  |  |  |
| 537(1,3,4) |  | XWA3B | Spring Washer | 7 |  |
| 538(1) |  | XSN3+6S | Screw | 1 |  |
| 538(1) |  | XWA3B | Spring Washer | 1 |  |
| 539(5) |  | XSN3+8S | Screw | 2 |  |
| 539(5) |  | XWA3B | Spring Washer | 2 |  |
| 540(3) |  | XSN3+10S | Screw | 1 |  |
| 540(3) |  | XWG3 | Spring Washer | 1 |  |
| 541(1) |  | XSN3+12S | Screw | 4 |  |
| 541(1) |  | XWG3 | Spring Washer | 4 |  |
| 542(1) |  | XSN3+10S | Screw | 1 |  |
|  |  |  |  |  |  |
| 543(1,2,3) |  | XSN3+6S | Screw | 5 |  |
| 543(1,2,3) |  | XWA3B | Spring Washer | 5 |  |
| 543(1,2,3) |  | XWG3 | Washer | 5 |  |
| 544(1,5) |  | XSN3+8S | Screw | 6 |  |
| 544(1,5) |  | XWA3B | Spring Washer | 6 |  |
| 544(1,5) |  | XWG3 | Washer | 6 |  |
| 545(5) |  | XSN4+8S | Screw | 1 |  |
| 545(5) |  | XWA4B | Spring Washer | 1 |  |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| 546 (1) | | XXE3A8FDS | | 1 | |
| 547 (5) | | XSN3+8N | Screw | 4 | |
| 547 (5) | | XWA3B | Spring Washer | 4 | |
| 547 (5) | | XWG3 | Washer | 4 | |
| 548 (5) | | XTV3+8BFN | | 6 | |
| 549 (6) | | XTB4+8J | | 1 | |
| 550 (6) | | XYE3+EF8 | | 1 | |
| | | | Washers | | |
| 601 (2,5) | | XWA3B | | 9 | |
| 602 (3,4,6) | | XWC3B | | 4 | |
| 604 (1) | | XWG4 | | 1 | |
| 605 (1) | | XWGV4Y7G | | 1 | |
| 606 (2,3,4) | | XWGV3D6G | | 19 | |
| 607 (3) | | XWGV3D6G | | 1 | |
| 609(1,2,3,4) | | XWGV4D9G | | 12 | |
| 610 (3) | | XWGV51F66G | | 1 | (A) only |
| 611 (5) | | XWN4BN | | 1 | |
| | | | Retaining Rings | | |
| 702(1,2,3,4) | | XUC3FT | | 11 | |
| 703 (4) | | XUC4FT | | 2 | |
| 705 (2,3) | | XUEV3VW | | 6 | |
| 706 (1,4) | | XUEV4VW | | 3 | |
| 707 (1,2,3) | | XUEV4VW | | 12 | |
| | | | Nuts | | |
| 801 (1,2,5) | | XNG3ES | | 10 | |
| 802 (1) | | XNG4ES | | 1 | |

# ELECTRICAL REPLACEMENT PARTS LIST

## Model No. AG-6200-E/B/EN/A, AG-6100-E/B/EN/A

Notes:
1. * Be sure to make your orders of replacement parts according to this list.
2. * "®" in Remarks column indicates recommended parts.
3. IMPORTANT SAFETY NOTICE
   Components identified by ⚠ have special characteristics important for safety.
   When replacing any of these components, use only the original ones.
4. Unless otherwise specified,
   All resistors are in OHMS (Ω), 1/4W ± 5% carbon. K=1,000Ω, M=1,000KΩ.
   All capacitors are in MICROFARADS (μF), ± 10% P=μμF.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VEP01138B1 | Power Supply C.B.A. | 1 | ® |
| | | VEP02181A | Servo C.B.A. | 1 | AG-6200 only ® |
| | | VEP02181B | Servo C.B.A. | 1 | AG-6100 only ® |
| | | VEP04093A | Audio (1) C.B.A. | 1 | AG-6200 only ® |
| | | VEP04093B | Audio (1) C.B.A. | 1 | AG-6100 only ® |
| | | VEP04094A | Audio (2) C.B.A. | 1 | AG-6200 only ® |
| | | VEP04094B | Audio (2) C.B.A. | 1 | AG-6100 only ® |
| | | VEP06190B1 | System Control C.B.A. | 1 | ® |
| | | VEP03164C | Luminance & Chrominance C.B.A. | 1 | AG-6200 only ® |
| | | VEP03164D | Luminance & Chrominance C.B.A. | 1 | AG-6100 only ® |
| | | VEP06189D | Front CPU C.B.A. | 1 | AG-6200 only ® |
| | | VEP06189E | Front CPU C.B.A. | 1 | AG-6100 only ® |
| | | VEP00B25A1 | Counter C.B.A. | 1 | ® |
| | | VEP06219A | 34P Control C.B.A. | 1 | ® |
| | | VEP00977C | Left Control Panel C.B.A. | 1 | AG-6200-E,B only ® |
| | | VEP00977B | Left Control Panel C.B.A. | 1 | AG-6200-EN,A only ® |
| | | VEP00A39B | Left Control Panel C.B.A. | 1 | AG-6100-E,B only ® |
| | | VEP00A39A | Left Control Panel C.B.A. | 1 | AG-6100-EN,A only ® |
| | | VEP00978A | Front Jack C.B.A. | 1 | AG-6200 only ® |
| | | VEP00978B | Front Jack C.B.A. | 1 | AG-6100 only ® |
| | | VEP00981D | Rear Jack C.B.A. | 1 | AG-6200 only ® |
| | | VEP00981E | Rear Jack C.B.A. | 1 | AG-6100 only ® |
| | | VJB00B59 | Mode Switch C.B. | 1 | |
| | | VJB00A41 | Mechanism Connection C.B. | 1 | |
| | | VJB00A05 | Lamp C.B. | 1 | |
| | | VJB00A06 | Front Loading Connection C.B. | 1 | |
| | | VJB00A19 | Power & Reel Drive Tr C.B. | 1 | |
| | | VJB00A40 | Front Connection C.B. | 1 | |
| | | VJB00636 | Supply Photo Tr C.B. | 1 | |

# Power Supply C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VJB00636 | Supply Photo Tr C.B. | 1 | |
| | | VJB00931 | Reel Sensor C.B. | 1 | |
| | | VJB00639 | Sensor LED C.B. | 1 | |
| | | VJB00898 | Full Erase Head Connection C.B. | 1 | AG-6200 only |
| | | VJB00A72 | A/C Head C.B. | 1 | |
| | | ESB9462 | Key Board Unit | 1 | AG-6200 only |
| | | ESB9466 | Key Board Unit | 1 | AG-6100 only |
| | | ENPE771 | Antenna Terminal Unit | 1 | AG-6200/6100-E only |
| | | ENPE772 | Antenna Terminal Unit | 1 | AG-6200/6100-B only |
| | | ENPE774 | Antenna Terminal Unit | 1 | AG-6200/6100-EN,A only |
| | | | Fuses | | |
| F1001 | | XBA2C16TROC | 250V 1.6A | 1 | ⚠ |
| F1002 | | XBA2C25TROC | 250V 2.5A | 1 | ⚠ |
| F1003 | | XBA2C31TROC | 250V 3.15A | 1 | ⚠ |
| F1004 | | XBA2C20TROC | 250V 2A | 1 | ⚠ |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VEP01138B1 | Power Supply C.B.A. | | |
| | | | Transistors | | |
| Q1001 | | 2SD639 | | 1 | (Q,R) |
| Q1002 | | 2SB943 | | 1 | (Q,R) ⚠ ® |
| Q1003 | | 2SD639 | | 1 | (Q,R) |
| Q1004 | | 2SD637 | | 1 | (Q,R) |
| Q1006 | | 2SD639 | | 1 | (Q,R) |
| Q1007 | | 2SB943 | | 1 | (Q,R) ⚠ ® |
| Q1008 | | 2SD639 | | 1 | (Q,R) |
| Q1009 | | 2SD637 | | 1 | (Q,R) |
| Q1010 | | 2SD636 | | 1 | (Q,R) |
| Q1013 | | 8P2M | Thyristor | 1 | |
| Q1014 | | 2SD639 | | 1 | (Q,R) |
| | | | Diodes | | |
| D1001-1003 | | S4VB10 | | 3 | ⚠ ® |
| D1004 | | RD5.6EB | Zener | 1 | |
| D1005 | | RD2.7EB | Zener | 1 | |
| D1006,1007 | | MA165 | | 2 | |
| D1008 | | RD16EB | Zener | 1 | |
| D1009 | | RD6.2EB | Zener | 1 | |
| D1010,1011 | | MA165 | | 2 | |
| D1012 | | RD33EB | Zener | 1 | |
| D1014,1015 | | MA165 | | 2 | |
| D1016 | | MA26T0 | | 1 | |
| D1017 | | RD13EB | Zener | 1 | |
| | | | Resistors | | |
| R1001 | | ERDS2TJ471 | 470 | 1 | |
| R1002,1003 | | ERDS2TJ821 | 820 | 2 | |
| R1004 | | ERDS2TJ101 | 100 | 1 | |
| R1005 | | ERDS2TJ331 | 330 | 1 | |
| R1006 | | EVN32CA00B52 | Variable 500 | 1 | |
| R1007 | | ERDS2TJ391 | 390 | 1 | |
| R1008 | | ERDS2TJ222 | 2.2K | 1 | |
| R1009 | | ERDS2TJ562 | 5.6K | 1 | |
| R1010 | | ERDS2TJ332 | 3.3K | 1 | |
| R1011,1012 | | ERDS2TJ152 | 1.5K | 2 | |
| R1013 | | ERDS2TJ182 | 1.8K | 1 | |
| R1014 | | ERDS2TJ122 | 1.2K | 1 | |
| R1015 | | EVN32CA00B52 | Variable 500 | 1 | |
| R1016 | | ERDS2TJ152 | 1.5K | 1 | |
| R1017,1018 | | ERDS2TJ103 | 10K | 2 | |
| R1019 | | ERDS2TJ472 | 4.7K | 1 | |
| R1020 | | ERDS2TJ471 | 470 | 1 | |
| R1021 | | ERDS2TJ152 | 1.5K | 1 | |
| R1022 | | ERDS2TJ561 | 560 | 1 | |
| | | | Capacitors | | |
| C1001 | | ECQE2A224MW | Mylar 100V 0.22 | 1 | ® |
| C1002 | | ECET25R682SU | Electrolytic 25V 6800 | 1 | |
| C1003,1004 | | ECET35R472SL | Electrolytic 35V 4700 | 2 | |
| C1005 | | ECEA1AS221 | Electrolytic 10V 220 | 1 | |
| C1006 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C1007 | | ECKF1H681KB | Ceramic 50V 680P | 1 | |
| C1008 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C1009 | | ECEA1AS221 | Electrolytic 10V 220 | 1 | |
| C1010 | | ECEA50MR68 | Electrolytic 50V 0.68 | 1 | |
| C1011 | | ECEA1VS101 | Electrolytic 35V 100 | 1 | |
| C1012 | | ECEA1ES101 | Electrolytic 25V 100 | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C1013 | | ECKF1H681KB | Ceramic 50V 680P | 1 | |
| C1014 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C1015 | | ECEA1ES331 | Electrolytic 25V 330 | 1 | |
| C1016 | | ECEA1ES101 | Electrolytic 25V 100 | 1 | |
| C1017 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C1018,1019 | | ECEA1ES101 | Electrolytic 25V 100 | 2 | |
| | | | Coil | | |
| L1001 | | VTQ0006 | | 1 | ⚠ |
| | | | Connectors | | |
| P1001 | | VJP1231 | 4P | 1 | |
| P1002 | | VJP1232 | 5P | 1 | |
| P1003 | | VJP1230 | 3P | 1 | |
| P1004 | | VJP1229 | 2P | 1 | |
| P1005 | | VJP1231 | 4P | 1 | |
| P1006 | | VJP1233 | 6P | 1 | |
| P1007 | | VJP1235 | 8P | 1 | |
| P1008 | | VJP1230 | 3P | 1 | |
| P1009 | | VJP1229 | 2P | 1 | |
| P1010 | | VJP1141 | 2P | 1 | |
| | | | Test Terminals | | |
| TP1001-1004 | | VJH23 | | 4 | |
| | | | Miscellaneous | | |
| | | SJT777 | Connection Terminal | 2 | ⚠ |
| | | TEL302 | Terminal | 9 | |
| | | VJS0039 | Fuse Holder | 8 | |
| | | VSC0976 | Heat Sink | 1 | |
| | | XSN3+8BNS | Screw | 2 | |
| | | XNG3ES | Nut | 2 | |
| | | XTV3+8BFN | Screw | 4 | |
| | | XWC3B | Washer | 1 | |
| | | XYE3+EF8 | Washer | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VEP02181A/B | Servo C.B.A. | | |
| | | | Integrated Circuits | | |
| IC2001 | | AN6357N | | 1 | ® |
| IC2002 | | AN6677 | | 1 | ® |
| IC2003 | | AN6346N | | 1 | ® |
| IC2004 | | MN6168VIA | | 1 | ® |
| IC2005 | | AN640G | | 1 | ® |
| IC2006 | | μPD1511AC045 | | 1 | ® |
| IC2007 | | μPD1511AC041 | | 1 | ® |
| IC2008,2009 | | μPC358C | | 2 | or NJM2904D ® |
| IC2013 | | μPC339C | | 1 | or AN6912, NJM2901 ® |
| IC2014 | | μPD4013BC | | 1 | ® |
| IC2016 | | μPD4528BC | | 1 | ® |
| IC2017 | | HD14538BP | | 1 | ® |
| IC2018 | | μPD4066BC | | 1 | ® |
| | | | Transistors | | |
| Q2002 | | 2SD636 | | 1 | (Q,R) |
| Q2003-2006 | | 2SB641 | | 4 | (Q,R) |
| Q2007 | | 2SD636 | | 1 | (Q,R) |
| Q2008-2010 | | 2SB641 | | 3 | (Q,R) |
| Q2011 | | 2SD636 | | 1 | (Q,R) |
| Q2012 | | 2SB641 | | 1 | (Q,R) |
| Q2015 | | 2SB641 | | 1 | (Q,R) |
| Q2016-2018 | | 2SD636 | | 3 | (Q,R) |
| Q2019,2020 | | 2SD636 | | 2 | (Q,R) AG-6200 only |
| Q2021-2023 | | 2SD636 | | 3 | (Q,R) |
| Q2025 | | 2SD636 | | 1 | (Q,R) |
| Q2026 | | 2SD637 | | 1 | (Q,R) |
| Q2027 | | 2SB941 | | 1 | (P,Q) ⚠ |
| Q2028 | | 2SD637 | | 1 | (Q,R) |
| Q2029 | | 2SB941 | | 1 | (P,Q) ⚠ |
| Q2030 | | 2SD637 | | 1 | (Q,R) |
| Q2031 | | 2SB941 | | 1 | (P,Q) ⚠ |
| Q2032-2034 | | 2SD1266 | | 3 | (P,Q) ⚠ |
| Q2035,2036 | | 2SD636 | | 2 | (Q,R) |
| Q2041 | | 2SD636 | | 1 | (Q,R) |
| Q2042 | | 2SC641 | | 1 | |
| Q2043 | | 2SD636 | | 1 | (Q,R) |
| Q2044 | | 2SC641 | | 1 | |
| Q2045 | | 2SD636 | | 1 | (Q,R) |
| Q2047-2049 | | 2SD636 | | 3 | (Q,R) |
| Q2050 | | 2SB641 | | 1 | (Q,R) |
| Q2051-2053 | | 2SD636 | | 3 | (Q,R) |
| Q2054 | | 2SB641 | | 1 | (Q,R) |
| Q2056 | | 2SD636 | | 1 | (Q,R) |
| Q2058 | | 2SB641 | | 1 | (Q,R) |
| Q2060,2061 | | 2SB641 | | 2 | (Q,R) |
| Q2062,2063 | | 2SD636 | | 2 | (Q,R) |
| Q2065 | | 2SD1266 | | 1 | (P,Q) ⚠ |
| Q2068,2069 | | 2SB641 | | 2 | (Q,R) |
| Q2075-2080 | | 2SD636 | | 6 | (Q,R) |
| Q2086-2090 | | 2SD636 | | 5 | (Q,R) |
| Q2091-2093 | | 2SB641 | | 3 | (Q,R) |
| Q2094,2095 | | 2SD636 | | 2 | (Q,R) |
| Q2096 | | 2SD636 | | 1 | (P,Q) |
| | | | Diodes | | |
| D2003,2004 | | MA165 | | 2 | |
| D2006 | | RD7.5EB | Zener | 1 | |

# Servo C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| D2009 | | MA165 | | 1 | AG-6200 only |
| D2010 | | MA165 | | 1 | |
| D2012 | | MA165 | | 1 | |
| D2013-2015 | | 10E1 | | 3 | |
| D2016 | | MA165 | | 1 | |
| D2020,2021 | | MA165 | | 2 | |
| D2022 | | RD6.2EB | Zener | 1 | or MA1062M |
| D2024-2026 | | MA165 | | 3 | |
| D2027 | | MA165 | | 1 | AG-6200 only |
| D2028 | | MA165 | | 1 | |
| D2030-2036 | | MA165 | | 7 | |
| D2039 | | MA165 | | 1 | AG-6200 only |
| D2045-2047 | | MA165 | | 3 | |
| D2048 | | MA165 | | 1 | AG-6200 only |
| D2049-2057 | | MA165 | | 9 | |
| D2058,2059 | | MA165 | | 2 | AG-6200 only |
| D2060 | | MA165 | | 1 | |
| D2061 | | MA165 | | 1 | AG-6200 only |
| D2063-2066 | | MA165 | | 4 | |
| D2068 | | MA165 | | 1 | |
| D2070 | | MA165 | | 1 | |
| D2071 | | MA165 | | 1 | AG-6200 only |
| D2072-2074 | | MA165 | | 3 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | Resistors | | |
| R2001 | | EVM38GA00B54 | Variable 50K | 1 | |
| R2002 | | ERDS2TJ124 | 120K | 1 | |
| R2006 | | ERDS2TJ103 | 10K | 1 | |
| R2007 | | ERDS2TJ562 | 5.6K | 1 | |
| R2008 | | ERDS2TJ104 | 100K | 1 | |
| R2010 | | ERDS2TJ563 | 56K | 1 | |
| R2012 | | ERDS2TJ104 | 100K | 1 | |
| R2013 | | ERDS2TJ105 | 1M | 1 | |
| R2014 | | ERDS2TJ332 | 3.3K | 1 | |
| R2015 | | ERDS2TJ563 | 56K | 1 | |
| R2016 | | ERDS2TJ560 | 56 | 1 | |
| R2017,2018 | | ERDS2TJ103 | 10K | 2 | |
| R2019,2020 | | ERDS2TJ473 | 47K | 2 | |
| R2021 | | ERDS2TJ563 | 56K | 1 | |
| R2022 | | ERDS2TJ473 | 47K | 1 | |
| R2023 | | ERDS2TJ562 | 5.6K | 1 | |
| R2024 | | ERDS2TJ223 | 22K | 1 | |
| R2025 | | ERDS2TJ823 | 82K | 1 | |
| R2026 | | ERD25TG103 | 10K | 1 | |
| R2027 | | ERD25TG123 | 12K | 1 | |
| R2028 | | ERD25TG683 | 68K | 1 | |
| R2029,2030 | | ERDS2TJ154 | 150K | 2 | |
| R2031 | | ERDS2TJ124 | 120K | 1 | |
| R2032 | | ERDS2TJ333 | 33K | 1 | |
| R2033 | | ERDS2TJ272 | 2.7K | 1 | |
| R2034 | | ERDS2TJ224 | 220K | 1 | |
| R2035 | | ERDS2TJ333 | 33K | 1 | |
| R2036 | | ERDS2TJ103 | 10K | 1 | |
| R2037 | | ERDS2TJ683 | 68K | 1 | |
| R2038,2039 | | ERDS2TJ103 | 10K | 2 | |
| R2040,2041 | | ERDS2TJ332 | 3.3K | 2 | |
| R2045 | | ERDS2TJ473 | 47K | 1 | |
| R2046 | | ERDS2TJ183 | 18K | 1 | |
| R2047 | | ERDS2TJ394 | 390K | 1 | |
| R2050 | | ERDS2TJ104 | 100K | 1 | |
| R2051 | | ERDS2TJ274 | 270K | 1 | |
| R2052-2054 | | ERDS2TJ220 | 22 | 3 | |
| R2055 | | ERX12ANJ1R0 | Metal Oxide 1/2W 1.0 | 1 | |
| R2056 | | ERDS2TJ124 | 120K | 1 | |
| R2057 | | ERDS2TJ153 | 15K | 1 | |
| R2058 | | ERDS2TJ103 | 10K | 1 | |
| R2060 | | ERDS2TJ682 | 6.8K | 1 | |
| R2061 | | EVM38GA00B54 | Variable 50K | 1 | |
| R2062 | | ERDS2TJ682 | 6.8K | 1 | |
| R2063 | | EVM38GA00B54 | Variable 50K | 1 | |
| R2064 | | EVM38GA00B15 | Variable 100K | 1 | |
| R2065 | | ERDS2TJ103 | 10K | 1 | |
| R2066 | | ERDS2TJ104 | 100K | 1 | |
| R2067 | | ERDS2TJ103 | 10K | 1 | |
| R2068 | | EROS2CKG1202 | 2.2K | 1 | |
| R2069 | | ERDS2TJ101 | 100 | 1 | |
| R2070 | | ERDS2TJ102 | 1K | 1 | |
| R2071 | | EROS2CKG1202 | 12K | 1 | |
| R2072 | | ERDS2TJ104 | 100K | 1 | |
| R2073 | | ERDS2TJ154 | 150K | 1 | |
| R2074 | | ERDS2TJ184 | 180K | 1 | |
| R2075 | | ERDS2TJ392 | 3.9K | 1 | |
| R2076 | | ERDS2TJ563 | 56K | 1 | |
| R2077 | | ERDS2TJ334 | 330K | 1 | AG-6200 only |
| R2078,2079 | | ERDS2TJ104 | 100K | 2 | AG-6200 only |
| R2080 | | ERDS2TJ563 | 56K | 1 | |
| R2081,2082 | | ERDS2TJ103 | 10K | 2 | |
| R2083 | | ERDS2TJ473 | 47K | 1 | |
| R2084 | | ERDS2TJ104 | 100K | 1 | |
| R2085 | | ERD25TG563 | 56K | 1 | |
| R2086 | | ERD25TG103 | 10K | 1 | |
| R2087 | | ERD25TG332 | 3.3K | 1 | |
| R2088 | | ERDS2TJ104 | 100K | 1 | |
| R2089 | | ERD25TG821 | 820 | 1 | |
| R2090 | | ERDS2TJ471 | 470 | 1 | |
| R2091 | | ERDS2TJ472 | 4.7K | 1 | |
| R2092 | | ERD25TG471 | 470 | 1 | |
| R2093 | | ERDS2TJ104 | 100K | 1 | |
| R2094 | | ERDS2TJ102 | 1K | 1 | |
| R2099 | | ERDS2TJ472 | 4.7K | 1 | |
| R2100 | | ERDS2TJ333 | 33K | 1 | |
| R2101 | | ERDS2TJ102 | 1K | 1 | |
| R2102 | | ERDS2TJ103 | 10K | 1 | |
| R2103 | | ERG12ANJ820 | Metal Oxide 1/2W 82 | 1 | |
| R2104 | | ERDS2TJ103 | 10K | 1 | |
| R2105 | | ERG12ANJ820 | Metal Oxide 1/2W 82 | 1 | |
| R2106 | | ERDS2TJ103 | 10K | 1 | |
| R2107 | | ERG12ANJ820 | Metal Oxide 1/2W 82 | 1 | |
| R2108-2111 | | ERDS2TJ151 | 150 | 4 | |
| R2112 | | ERDS2TJ103 | 10K | 1 | |
| R2113 | | ERDS2TJ151 | 150 | 1 | |
| R2114 | | ERDS2TJ103 | 10K | 1 | |
| R2115 | | ERDS2TJ151 | 150 | 1 | |
| R2116 | | ERDS2TJ103 | 10K | 1 | |
| R2117 | | ERDS2TJ123 | 12K | 1 | |
| R2120 | | ERDS2TJ563 | 56K | 1 | |
| R2155 | | ERDS2TJ104 | 100K | 1 | |
| R2156 | | ERDS2TJ333 | 33K | 1 | |
| R2157 | | ERDS2TJ104 | 100K | 1 | |
| R2158 | | ERDS2TJ561 | 560 | 1 | |
| R2160,2161 | | ERDS2TJ103 | 10K | 2 | |
| R2162 | | ERDS2TJ333 | 33K | 1 | |
| R2163 | | ERDS2TJ224 | 220K | 1 | |
| R2164 | | ERDS2TJ333 | 33K | 1 | |
| R2165 | | ERDS2TJ563 | 56K | 1 | |
| R2166,2167 | | ERDS2TJ103 | 10K | 2 | |
| R2168 | | ERDS2TJ122 | 1.2K | 1 | |
| R2169 | | ERDS2TJ470 | 47 | 1 | |
| R2170 | | ERDS2TJ681 | 680 | 1 | |
| R2172,2173 | | ERDS2TJ333 | 33K | 2 | |
| R2174-2176 | | ERDS2TJ332 | 3.3K | 3 | |
| R2177,2178 | | ERDS2TJ103 | 10K | 2 | |
| R2179 | | ERDS2TJ104 | 100K | 1 | |
| R2180 | | ERDS2TJ223 | 22K | 1 | |
| R2181 | | ERDS2TJ102 | 1K | 1 | |
| R2183 | | ERDS2TJ103 | 10K | 1 | |
| R2184 | | ERDS2TJ221 | 220 | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R2185 | | ERDS2TJ103 | 10K | 1 | |
| R2186,2187 | | ERDS2TJ223 | 22K | 2 | |
| R2191 | | ERDS2TJ333 | 33K | 1 | |
| R2192 | | ERDS2TJ103 | 10K | 1 | |
| R2193 | | ERDS2TJ152 | 1.5K | 1 | |
| R2194 | | ERDS2TJ103 | 10K | 1 | |
| R2197 | | ERDS2TJ563 | 56K | 1 | |
| R2198 | | ERDS2TJ333 | 33K | 1 | |
| R2199 | | ERDS2TJ563 | 56K | 1 | |
| R2200 | | ERDS2TJ104 | 100K | 1 | |
| R2201 | | ERDS2TJ102 | 1K | 1 | |
| R2202 | | ERDS2TJ223 | 22K | 1 | |
| R2203 | | ERDS2TJ471 | 470 | 1 | |
| R2204 | | ERDS2TJ223 | 22K | 1 | |
| R2205 | | ERDS2TJ105 | 1M | 1 | |
| R2206,2207 | | ERDS2TJ103 | 10K | 2 | |
| R2208 | | ERDS2TJ105 | 1M | 1 | |
| R2209 | | ERDS2TJ223 | 22K | 1 | |
| R2210 | | ERDS2TJ391 | 390 | 1 | |
| R2211 | | ERDS2TJ223 | 22K | 1 | |
| R2212 | | ERDS2TJ471 | 470 | 1 | |
| R2213 | | ERDS2TJ563 | 56K | 1 | |
| R2214 | | ERDS2TJ104 | 100K | 1 | |
| R2216 | | ERDS2TJ562 | 5.6K | 1 | |
| R2217 | | ERDS2TJ122 | 1.2K | 1 | |
| R2218 | | ERDS2TJ103 | 10K | 1 | |
| R2221 | | ERDS2TJ103 | 10K | 1 | |
| R2222 | | ERDS2TJ333 | 33K | 1 | |
| R2223 | | ERDS2TJ223 | 22K | 1 | |
| R2225 | | ERDS2TJ333 | 33K | 1 | |
| R2227 | | ERDS2TJ333 | 33K | 1 | |
| R2228 | | ERDS2TJ103 | 10K | 1 | |
| R2231 | | ERDS2TJ332 | 3.3K | 1 | |
| R2232 | | ERDS2TJ821 | 820 | 1 | |
| R2233 | | ERDS2TJ272 | 2.7K | 1 | |
| R2234,2235 | | ERDS2TJ333 | 33K | 2 | |
| R2236 | | ERDS2TJ391 | 390 | 1 | |
| R2238 | | ERDS2TJ103 | 10K | 1 | |
| R2239,2240 | | ERDS2TJ103 | 10K | 2 | AG-6200 only |
| R2243 | | ERDS2TJ184 | 180K | 1 | |
| R2244 | | ERDS2TJ103 | 10K | 1 | |
| R2245 | | ERDS2TJ333 | 33K | 1 | |
| R2246,2247 | | ERDS2TJ104 | 100K | 2 | |
| R2248 | | ERDS2TJ222 | 2.2K | 1 | |
| R2249 | | EVM38GA00B24 | Variable 20K | 1 | |
| R2250 | | ERDS2TJ562 | 5.6K | 1 | |
| R2253 | | ERDS2TJ473 | 47K | 1 | |
| R2254 | | ERDS2TJ333 | 33K | 1 | |
| R2256 | | ERDS2TJ392 | 3.9K | 1 | |
| R2257 | | ERX1ANJR82 | Metal Oxide 1W 0.82 | 1 | |
| R2258 | | ERDS2TJ563 | 56K | 1 | |
| R2259 | | ERDS2TJ153 | 15K | 1 | |
| R2262 | | ERDS2TJ104 | 100K | 1 | |
| R2264 | | ERDS2TJ103 | 10K | 1 | |
| R2266 | | ERDS2TJ104 | 100K | 1 | |
| R2267 | | ERDS2TJ103 | 10K | 1 | |
| R2268 | | ERDS2TJ333 | 33K | 1 | |
| R2269 | | ERDS2TJ103 | 10K | 1 | |
| R2272 | | ERDS2TJ103 | 10K | 1 | |
| R2282 | | ERDS2TJ104 | 100K | 1 | |
| R2283 | | ERDS2TJ333 | 33K | 1 | |
| R2284 | | ERDS2TJ104 | 100K | 1 | |
| R2295 | | ERDS2TJ124 | 120K | 1 | |
| R2296 | | ERDS2TJ224 | 220K | 1 | |
| R2300 | | ERDS2TJ333 | 33K | 1 | |
| R2301 | | ERDS2TJ104 | 100K | 1 | |
| R2302 | | ERDS2TJ333 | 33K | 1 | |
| R2303-2305 | | ERDS2TJ471 | 470 | 3 | |
| R2306-2308 | | ERDS2TJ104 | 100K | 3 | |
| R2310 | | ERDS2TJ104 | 100K | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R2311 | | ERDS2TJ823 | 82K | 1 | |
| R2312 | | ERDS2TJ333 | 33K | 1 | |
| R2313 | | ERDS2TJ104 | 100K | 1 | |
| R2314 | | ERDS2TJ333 | 33K | 1 | |
| R2315 | | ERDS2TJ104 | 100K | 1 | |
| R2316 | | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R2317 | | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R2318 | | ERDS2TJ333 | 33K | 1 | |
| R2319 | | ERDS2TJ104 | 100K | 1 | |
| R2320,2321 | | ERDS2TJ333 | 33K | 2 | |
| R2322 | | ERDS2TJ334 | 330K | 1 | |
| R2323 | | ERDS2TJ222 | 2.2K | 1 | AG-6200 only |
| R2336 | | ERDS2TJ333 | 33K | 1 | |
| R2337 | | ERDS2TJ104 | 100K | 1 | |
| R2338 | | ERDS2TJ333 | 33K | 1 | |
| R2339,2340 | | ERDS2TJ562 | 5.6K | 2 | |
| R2341 | | ERDS2TJ273 | 27K | 1 | |
| R2342 | | ERDS2TJ222 | 2.2K | 1 | |
| R2343 | | ERDS2TJ102 | 1K | 1 | |
| R2345 | | ERDS2TJ103 | 10K | 1 | |
| R2346 | | ERDS2TJ560 | 56 | 1 | |
| R2347 | | ERDS2TJ272 | 2.7K | 1 | |
| R2348 | | ERDS2TJ333 | 33K | 1 | |
| R2349 | | ERDS2TJ222 | 2.2K | 1 | |
| R2350 | | ERDS2TJ103 | 10K | 1 | |
| R2351 | | ERDS2TJ273 | 27K | 1 | |
| R2352 | | ERDS2TJ123 | 12K | 1 | |
| R2353 | | ERDS2TJ104 | 100K | 1 | |
| R2354 | | ERDS2TJ333 | 33K | 1 | |
| R2355 | | ERDS2TJ104 | 100K | 1 | |
| R2356 | | ERDS2TJ823 | 82K | 1 | |
| R2357 | | ERDS2TJ333 | 33K | 1 | |
| R2358 | | ERDS2TJ104 | 100K | 1 | |
| R2359-2361 | | ERDS2TJ184 | 180K | 3 | |
| R2362 | | ERDS2TJ333 | 33K | 1 | |
| R2363 | | ERDS2TJ104 | 100K | 1 | |
| R2364 | | ERDS2TJ333 | 33K | 1 | |
| R2366 | | ERDS2TJ333 | 33K | 1 | AG-6200 only |
| R2366 | | ERDS2TJ103 | 10K | 1 | AG-6100 only |
| R2367 | | ERDS2TJ103 | 10K | 1 | |
| R2368 | | EVM38GA00B54 | Variable 50K | 1 | |
| R2370 | | ERDS2TJ824 | 820K | 1 | |
| R2371 | | ERDS2TJ104 | 100K | 1 | |
| R2372 | | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R2373 | | ERQ12HJ1R8 | Fuse 1/2W 1.8 | 1 | ⚠ |
| R2374 | | ERDS2TJ822 | 8.2K | 1 | AG-6200 only |
| R2375 | | ERDS2TJ333 | 33K | 1 | |
| R2376 | | ERDS2TJ104 | 100K | 1 | |
| R2377 | | ERDS2TJ103 | 10K | 1 | |
| R2378 | | ERDS2TJ104 | 100K | 1 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | Capacitors | | |
| C2001 | | ECQM1H683JV | Mylar 50V 0.068 | 1 | |
| C2002 | | ECQV05224JZ | Mylar 50V 0.22 | 1 | |
| C2003 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C2004 | | ECKF1H472ZF | Ceramic 50V 4700P | 1 | |
| C2005 | | ECQV05823JZ | Mylar 50V 0.082 | 1 | |
| C2006 | | ECQM1H223KZ | Mylar 50V 0.022 | 1 | |
| C2007 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | |
| C2008 | | ECQV05474JZ | Mylar 50V 0.47 | 1 | |
| C2009 | | ECEA1CN100 | Electrolytic 16V 10 | 1 | |
| C2010 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | |
| C2011 | | ECQM1H562KZ | Mylar 50V 5600P | 1 | |
| C2012 | | ECQV05104JB | Mylar 50V 0.1 | 1 | |
| C2013 | | ECQM1H562KZ | Mylar 50V 5600P | 1 | |
| C2014 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C2015 | | ECEA1EN3R3 | Electrolytic 25V 3.3 | 1 | |
| C2016 | | ECEA1HS2R2 | Electrolytic 50V 2.2 | 1 | |

# Servo C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C2017 | | ECQM1H103KZ | Mylar 50V 0.01 | 1 | |
| C2018-2020 | | ECEA1HN010 | Electrolytic 50V 1 | 3 | |
| C2021 | | ECQM1H333KZ | Mylar 50V 0.033 | 1 | |
| C2022 | | ECEA1HS3R3 | Electrolytic 50V 3.3 | 1 | |
| C2023-2025 | | ECEA50ZR22 | Electrolytic 50V 0.22 | 3 | |
| C2026 | | ECQM1H822KZ | Mylar 50V 8200P | 1 | |
| C2027 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C2028 | | ECEA1AS101 | Electrolytic 10V 100 | 1 | |
| C2029 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C2030,2031 | | ECQV05683JZ | Mylar 50V 0.068 | 2 | |
| C2032 | | ECQV05274JZ | Mylar 50V 0.27 | 1 | |
| C2033 | | ECQM1H182KZ | Mylar 50V 1800P | 1 | |
| C2034 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C2035 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C2036 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | |
| C2037 | | ECQM1H273KZ | Mylar 50V 0.027 | 1 | |
| C2038 | | ECEA0JS101 | Electrolytic 6.3V 100 | 1 | |
| C2039 | | ECKF1H221KB | Ceramic 50V 220P | 1 | |
| C2041 | | ECQM1H332JZ | Mylar 50V 3300P | 1 | |
| C2042 | | ECQM1H103KZ | Mylar 50V 0.01 | 1 | |
| C2043 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | |
| C2044 | | ECQM1H102KZ | Mylar 50V 1000P | 1 | |
| C2045 | | ECQV05563JZ | Mylar 50V 0.056 | 1 | |
| C2046 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | |
| C2047 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C2048 | | ECQM1H473KZ | Mylar 50V 0.047 | 1 | |
| C2049 | | ECEA50ZR1 | Electrolytic 50V 0.1 | 1 | |
| C2050 | | ECEA50ZR33 | Electrolytic 50V 0.33 | 1 | |
| C2051 | | ECQM1H332KZ | Mylar 50V 3300P | 1 | AG-6200 only |
| C2052-2054 | | ECEA1HN010 | Electrolytic 50V 1 | 3 | |
| C2055 | | ECQM1H103KZ | Mylar 50V 0.01 | 1 | |
| C2056 | | ECQV05334JZ | Mylar 50V 0.33 | 1 | |
| C2057 | | ECQM1H103KZ | Mylar 50V 0.01 | 1 | |
| C2058 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C2059-2061 | | ECEA50ZR33 | Electrolytic 50V 0.33 | 3 | |
| C2062 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C2063 | | ECQV05104JB | Mylar 50V 0.1 | 1 | |
| C2064 | | ECEA1HS2R2 | Electrolytic 50V 2.2 | 1 | |
| C2065 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C2077 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | |
| C2078,2079 | | ECEA50ZR68 | Electrolytic 50V 0.68 | 2 | |
| C2081,2082 | | ECCF1H680KC | Ceramic 50V 68P | 2 | |
| C2083 | | ECQV05104JZ | Mylar 50V 0.1 | 1 | |
| C2084,2085 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C2086 | | ECQM1H683KZ | Mylar 50V 0.068 | 1 | |
| C2087 | | ECQM1H154KZ | Mylar 50V 0.15 | 1 | |
| C2088,2089 | | ECCF1H680KC | Ceramic 50V 68P | 2 | |
| C2090,2091 | | ECEA1CS100 | Electrolytic 16V 10 | 2 | |
| C2092 | | ECQV05104JB | Mylar 50V 0.1 | 1 | |
| C2093 | | ECEA1ES470 | Electrolytic 25V 47 | 1 | |
| C2094 | | ECEA1ES4R7 | Electrolytic 25V 47 | 1 | |
| C2095 | | ECEA0JS330 | Electrolytic 6.3V 33 | 1 | AG-6200 only |
| C2096 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | AG-6200 only |
| C2098 | | ECQV05683JZ | Mylar 50V 0.068 | 1 | |
| C2099 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C2100 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C2101 | | ECCF1H390J | Ceramic 50V 39P | 1 | |
| C2102 | | ECCF1H101J | Ceramic 50V 100P | 1 | |
| C2103 | | ECCF1H121J | Ceramic 50V 120P | 1 | |
| C2104 | | ECCF1H100FC | Ceramic 50V 10P | 1 | |
| C2105 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C2106 | | ECV1ZW30X64 | Trimmer 30P | 1 | |
| C2107 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C2108 | | ECQV05104JZ | Mylar 50V 0.1 | 1 | |
| | | | Coils | | |
| L2001,2002 | | VLQEL06F470K | Peaking 47μH | 2 | |
| L2003 | | VLQEL06F221K | 200μH | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| L2004 | | VLQEL06F330K | 33μH | 1 | |
| | | | Resistor Arrays | | |
| RA2001 | | EXBP87103K | 10Kx7 | 1 | |
| RA2002 | | EXBP84103K | 10Kx4 | 1 | |
| | | | Crystals | | |
| X2001,2002 | | VSX0082 | | 2 | Ⓡ |
| X2003 | | VSX0060 | | 1 | |
| | | | Connectors | | |
| P001 | | VJP1238 | 11P | 1 | |
| P2001 | | VJP1235 | 8P | 1 | |
| P2002 | | VJP1233 | 6P | 1 | |
| P2003 | | VJP1237 | 10P | 1 | |
| P2004 | | VJP1235 | 8P | 1 | |
| P2005 | | VJP1235 | 8P | 1 | |
| P2006 | | VJP1233 | 6P | 1 | |
| P2008 | | VJP1229 | 2P | 1 | |
| P2009 | | VJP1232 | 5P | 1 | |
| P2010 | | VJP1231 | 4P | 1 | |
| P2012 | | VJP1230 | 3P | 1 | |
| | | | Test Terminals | | |
| TP2001-2022 | | VJh0096Z | | 22 | |
| TP GND1,2 | | VJH0096Z | | 2 | |

## Audio (1) C.B.A.

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
|  |  | VEP04093A/B | Audio (1) C.B.A. |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Integrated Circuits |  |  |
| IC4002 |  | HA12005 |  | 1 | ® |
| IC4006 |  | HA12005 |  | 1 | ® |
| IC4010 |  | AN360 |  | 1 | AG-6200 only ® |
| IC4011 |  | μPC4558C |  | 1 | or NJM4558D ® |
|  |  |  |  |  | AG-6200 only |
|  |  |  |  |  |  |
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|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Transistors |  |  |
| Q4002 |  | 2SD636 |  | 1 | (Q,R) |
| Q4004 |  | 2SD636 |  | 1 | (Q,R) AG-6200 only |
| Q4006 |  | 2SD636 |  | 1 | (Q,R) |
| Q4008 |  | 2SD636 |  | 1 | (Q,R) AG-6200 only |
| Q4009 |  | 2SB643 |  | 1 | (Q,R,S) |
| Q4010 |  | 2SD655 |  | 1 |  |
| Q4011 |  | 2SD636 |  | 1 | (Q,R) |
| Q4012,4013 |  | 2SD636 |  | 2 | (Q,R) AG-6200 only |
| Q4014 |  | 2SB641 |  | 1 | (Q,R) AG-6200 only |
| Q4015 |  | 2SD636 |  | 1 | (Q,R) AG-6200 only |
| Q4016 |  | 2SD636 |  | 1 | (Q,R) |
| Q4017 |  | 2SD636 |  | 1 | (Q,R) AG-6200 only |
| Q4018 |  | 2SD655 |  | 1 |  |
| Q4019 |  | 2SD636 |  | 1 | (Q,R) |
| Q4020,4021 |  | 2SD636 |  | 2 | (Q,R) AG-6200 only |
| Q4022 |  | 2SB641 |  | 1 | (Q,R) AG-6200 only |
| Q4023 |  | 2SD636 |  | 1 | (Q,R) AG-6200 only |
| Q4024 |  | 2SD636 |  | 1 | (Q,R) |
| Q4025 |  | 2SD636 |  | 1 | (Q,R) AG-6200 only |
| Q4046,4047 |  | 2SD636 |  | 2 | (Q,R) AG-6200 only |
| Q4050,4051 |  | 2SD636 |  | 2 | (Q,R) AG-6200 only |
| Q4101 |  | 2SB643 |  | 1 | (Q,R) |
| Q4110 |  | 2SD636 |  | 1 | (Q,R) AG-6200 only |
| Q4116,4117 |  | 2SD636 |  | 2 | (Q,R) AG-6200 only |
| Q4118,4119 |  | 2SB643 |  | 2 | (Q,R,S) AG-6200 only |
|  |  |  |  |  |  |
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|  |  |  |  |  |  |
|  |  |  | Diodes |  |  |
| D4005-4008 |  | MA165 |  | 4 | AG-6200 only |
| D4014 |  | MA165 |  | 1 | AG-6200 only |
| D4015 |  | MA165 |  | 1 |  |
| D4018,4019 |  | MA165 |  | 2 |  |
| D4020 |  | MA165 |  | 1 | AG-6200 only |
| D4038 |  | RD6.2EB | Zener | 1 | or MA1062M |
|  |  |  |  |  | AG-6200 only |
| D4039 |  | MA165 |  | 1 | AG-6200 only |
| D4043-4046 |  | MA165 |  | 4 | AG-6200 only |
| D4048,4049 |  | MA165 |  | 2 |  |
| D4071 |  | MA165 |  | 1 |  |
| D4072 |  | MA165 |  | 1 | AG-6200 only |
| D4073 |  | MA165 |  | 1 |  |
| D4074 |  | MA165 |  | 1 | AG-6200 only |
| D4086,4087 |  | MA165 |  | 2 |  |
| D4088 |  | MA165 |  | 1 | AG-6200 only |
| D4089-4091 |  | MA165 |  | 3 |  |
| D4108-4111 |  | MA165 |  | 4 | AG-6200 only |
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|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Resistors |  |  |
| R4003 |  | ERDS2TJ562 | 5.6K | 1 |  |

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R4004 |  | ERDS2TJ223 | 22K | 1 |  |
| R4005 |  | ERDS2TJ272 | 2.7K | 1 |  |
| R4006 |  | ERDS2TJ562 | 5.6K | 1 |  |
| R4009 |  | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4010 |  | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4011 |  | ERDS2TJ222 | 2.2K | 1 | AG-6200 only |
| R4014 |  | ERDS2TJ562 | 5.6K | 1 |  |
| R4015 |  | ERDS2TJ223 | 22K | 1 |  |
| R4016 |  | ERDS2TJ272 | 2.7K | 1 |  |
| R4017 |  | ERDS2TJ562 | 5.6K | 1 |  |
| R4020 |  | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4021 |  | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4022 |  | ERDS2TJ222 | 2.2K | 1 | AG-6200 only |
| R4023 |  | ERDS2TJ103 | 10K | 1 |  |
| R4024 |  | ERDS2TJ333 | 33K | 1 |  |
| R4029 |  | ERD25TJ221 | 220 | 1 |  |
| R4030 |  | EVN38CA00B53 | Variable 5K | 1 |  |
| R4031 |  | ERDS2TJ224 | 220K | 1 |  |
| R4032 |  | ERDS2TJ102 | 1K | 1 |  |
| R4033 |  | EVM38GA00B24 | Variable 20K | 1 |  |
| R4034 |  | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4035 |  | ERDS2TJ104 | 100K | 1 |  |
| R4036-4038 |  | ERDS2TJ222 | 2.2K | 3 |  |
| R4039 |  | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R4040 |  | ERDS2TJ103 | 10K | 1 |  |
| R4041 |  | ERDS2TJ562 | 5.6K | 1 |  |
| R4042 |  | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R4043 |  | ERDS2TJ123 | 12K | 1 |  |
| R4051 |  | ERD25TJ154 | 150K | 1 |  |
| R4052,4053 |  | ERD25TJ682 | 6.8K | 2 |  |
| R4055 |  | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4056 |  | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R4057 |  | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4061 |  | ERD25TJ273 | 27K | 1 | AG-6200 only |
| R4062 |  | ERDS2TJ393 | 39K | 1 | AG-6200 only |
| R4065 |  | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R4066 |  | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R4067,4068 |  | ERDS2TJ472 | 4.7K | 2 | AG-6200 only |
| R4069 |  | ERD25TJ824 | 820K | 1 | AG-6200 only |
| R4070 |  | ERDS2TJ822 | 8.2K | 1 |  |
| R4071 |  | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R4072 |  | ERDS2TJ333 | 33K | 1 | AG-6200 only |
| R4073 |  | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4078 |  | ERDS2TJ182 | 1.8K | 1 |  |
| R4083 |  | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4084 |  | ERDS2TJ333 | 33K | 1 |  |
| R4085 |  | ERDS2TJ103 | 10K | 1 |  |
| R4086 |  | EVM38GA00B53 | Variable 5K | 1 | AG-6200 only |
| R4087 |  | ERDS2TJ183 | 18K | 1 | AG-6200 only |
| R4088,4089 |  | ERDS2TJ104 | 100K | 2 | AG-6200 only |
| R4090 |  | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4095 |  | ERDS2TJ153 | 15K | 1 | AG-6200 only |
| R4096 |  | ERDS2TJ820 | 82 | 1 | AG-6200 only |
| R4097 |  | ERDS2TJ182 | 1.8K | 1 | AG-6200 only |
| R4106 |  | ERD25TJ221 | 220 | 1 |  |
| R4107 |  | ERDS2TJ224 | 220K | 1 |  |
| R4108 |  | EVM38CA00B53 | Variable 5K | 1 |  |
| R4109 |  | ERDS2TJ102 | 1K | 1 |  |
| R4110 |  | EVM38GA00B24 | Variable 20K | 1 |  |
| R4111 |  | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4112 |  | ERDS2TJ104 | 100K | 1 |  |
| R4113-4115 |  | ERDS2TJ222 | 2.2K | 3 |  |
| R4117 |  | ERDS2TJ103 | 10K | 1 |  |
| R4118 |  | ERDS2TJ562 | 5.6K | 1 |  |
| R4119 |  | ERDS2TJ102 | 1K | 1 |  |
| R4120 |  | ERDS2TJ123 | 12K | 1 | AG-6200 only |
| R4126 |  | ERD25TJ154 | 150K | 1 |  |
| R4128,4129 |  | ERD25TJ682 | 6.8K | 2 |  |
| R4131 |  | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R4135 |  | ERD25TJ273 | 27K | 1 | AG-6200 only |

# Audio (1) C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R4136 | | ERDS2TJ393 | 39K | 1 | AG-6200 only |
| R4139 | | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R4140 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R4141,4142 | | ERDS2TJ472 | 4.7K | 2 | AG-6200 only |
| R4143 | | ERD25TJ824 | 820K | 1 | AG-6200 only |
| R4144 | | ERDS2TJ822 | 8.2K | 1 | |
| R4145 | | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R4146 | | ERDS2TJ333 | 33K | 1 | AG-6200 only |
| R4147 | | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4151 | | ERDS2TJ182 | 1.8K | 1 | |
| R4157 | | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4158 | | ERDS2TJ333 | 33K | 1 | |
| R4159 | | ERDS2TJ103 | 10K | 1 | |
| R4160 | | EVM38GA00B53 | Variable 5K | 1 | AG-6200 only |
| R4161 | | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R4162 | | ERDS2TJ183 | 18K | 1 | AG-6200 only |
| R4163 | | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R4164 | | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4169 | | ERDS2TJ153 | 15K | 1 | AG-6200 only |
| R4170 | | ERDS2TJ820 | 82 | 1 | AG-6200 only |
| R4171 | | ERDS2TJ182 | 1.8K | 1 | AG-6200 only |
| R4227 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4228 | | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R4229 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4230 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R4231 | | ERDS2TJ472 | 4.7K | 1 | AG-6200 only |
| R4232 | | ERDS2TJ563 | 56K | 1 | AG-6200 only |
| R4233 | | ERDS2TJ121 | 120 | 1 | AG-6200 only |
| R4234 | | ERDS2TJ560 | 56 | 1 | AG-6200 only |
| R4265-4268 | | ERDS2TJ103 | 10K | 4 | AG-6200 only |
| R4269,4270 | | ERDS2TJ104 | 100K | 2 | |
| R4273,4274 | | ERDS2TJ105 | 1M | 2 | |
| R4351,4352 | | EVM38GA00B25 | Variable 200K | 2 | AG-6200 only |
| R4400 | | ERDS2TJ103 | 10K | 1 | |
| R4401 | | ERDS2TJ333 | 33K | 1 | |
| R4423 | | ERDS2TJ333 | 33K | 1 | AG-6200 only |
| R4424 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4425 | | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R4428 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4439 | | ERDS2TJ123 | 12K | 1 | |
| R4440,4441 | | ERDS2TJ123 | 12K | 2 | AG-6200 only |
| R4442 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4443 | | ERDS2TJ333 | 33K | 1 | AG-6200 only |
| R4444 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4445 | | ERDS2TJ333 | 33K | 1 | AG-6200 only |
| R4446 | | ERDS2TJ223 | 22K | 1 | |
| R4447 | | ERDS2TJ103 | 10K | 1 | |
| R4448 | | ERDS2TJ123 | 12K | 1 | |
| R4449 | | ERDS2TJ103 | 10K | 1 | |
| R4450 | | ERDS2TJ123 | 12K | 1 | AG-6200 only |
| R4451 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4452 | | ERDS2TJ223 | 22K | 1 | |
| R4453 | | ERDS2TJ103 | 10K | 1 | |
| R4454 | | ERDS2TJ123 | 12K | 1 | |
| R4455 | | ERDS2TJ103 | 10K | 1 | |
| R4484,4485 | | ERDS2TJ103 | 10K | 2 | AG-6200 only |
| R4486 | | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4487 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4488,4489 | | ERDS2TJ562 | 5.6K | 2 | AG-6200 only |
| R4504,4505 | | ERD25TG821 | 820 | 2 | AG-6200 only |
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| | | | Capacitors | | |
| C4005 | | ECEA16M10 | Electrolytic 16V 10 | 1 | |
| C4006 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | |
| C4007 | | ECEA10M33 | Electrolytic 10V 33 | 1 | |
| C4008 | | ECQV05393JZ | Mylar 50V 0.039 | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C4009 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | |
| C4010 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4011 | | ECEA1HS2R2 | Electrolytic 50V 2.2 | 1 | |
| C4012 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4013-4015 | | ECQM1H153JZ | Mylar 50V 0.015 | 3 | |
| C4019 | | ECKF1H221KB | Ceramic 50V 220P | 1 | |
| C4023 | | ECEA1CSS471 | Electrolytic 16V 470 | 1 | |
| C4024 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C4027 | | ECEA10M33 | Electrolytic 10V 33 | 1 | AG-6200 only |
| C4028 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | AG-6200 only |
| C4029 | | ECEA50M1 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4031 | | ECEA1CN100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4032 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4033 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4034 | | ECQM1H273JZ | Mylar 50V 0.027 | 1 | AG-6200 only |
| C4035 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4043 | | ECEA1CS221 | Electrolytic 16V 220 | 1 | |
| C4050 | | ECEA50ZR1 | Electrolytic 50V 0.1 | 1 | AG-6200 only |
| C4051 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4055 | | ECQM1H183JZ | Mylar 50V 0.018 | 1 | AG-6200 only |
| C4056 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C4058 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4065 | | ECKF1H221KB | Mylar 50V 220P | 1 | |
| C4066 | | ECEA16M10 | Electrolytic 16V 10 | 1 | |
| C4067 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | |
| C4068 | | ECEA10M33 | Electrolytic 10V 33 | 1 | |
| C4069 | | ECQV05393JZ | Mylar 50V 0.039 | 1 | |
| C4070 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | |
| C4071 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4072 | | ECEA1HS2R2 | Electrolytic 50V 2.2 | 1 | |
| C4073 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4074-4076 | | ECQM1H153JZ | Mylar 50V 0.015 | 3 | |
| C4080 | | ECEA1CSS471 | Electrolytic 16V 470 | 1 | |
| C4083 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C4086 | | ECEA10M33 | Electrolytic 10V 33 | 1 | AG-6200 only |
| C4087 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | AG-6200 only |
| C4088 | | ECEA50M1 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4090 | | ECEA1CN100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4091 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4092 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4093 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4094 | | ECQV05273JZ | Mylar 50V 0.027 | 1 | AG-6200 only |
| C4105 | | ECEA50ZR1 | Electrolytic 50V 0.1 | 1 | AG-6200 only |
| C4106 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4107 | | ECEA1CS221 | Electrolytic 16V 220 | 1 | |
| C4113 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4116 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | AG-6200 only |
| C4118 | | ECQM1H183JZ | Mylar 50V 0.018 | 1 | AG-6200 only |
| C4119 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C4161 | | ECEA1CS330 | Electrolytic 16V 33 | 1 | AG-6200 only |
| C4162 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4163 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | AG-6200 only |
| C4164 | | ECEA1CS330 | Electrolytic 16V 33 | 1 | AG-6200 only |
| C4165 | | ECCF1H330KC | Ceramic 50V 33P | 1 | AG-6200 only |
| C4166 | | ECQM1H822KV | Mylar 50V 8200P | 1 | AG-6200 only |
| C4167 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | AG-6200 only |
| C4178,4179 | | ECEA1HS4R7 | Electrolytic 50V 4.7 | 2 | AG-6200 only |
| C4307 | | ECEA50ZR68 | Electrolytic 50V 0.68 | 1 | |
| C4308 | | ECEA1ES4R7 | Electrolytic 25V 4.7 | 1 | |
| C4309 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4310 | | ECEA50ZR68 | Electrolytic 50V 0.68 | 1 | |
| C4311 | | ECEA1ES4R7 | Electrolytic 25V 4.7 | 1 | |
| C4314,4315 | | ECQM1H332JZ | Mylar 50V 3300P | 2 | AG-6200 only |
| C4324,4325 | | ECEA1ESS100 | Electrolytic 25V 10 | 2 | AG-6200 only |
| C4328 | | ECEA1ES100 | Electrolytic 25V 10 | 1 | AG-6200 only |
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| C4340,4341 | | ECQM1H102JZ | Mylar 50V 1000P | 2 | AG-6200 only |
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# Audio (2) C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | | Coils | | |
| L4003 | | VLQ0123 | | 1 | AG-6200 only |
| L4005 | | VLQ80F102K | Choke 1mH | 1 | AG-6200 only |
| L4006 | | VLQ0123 | | 1 | AG-6200 only |
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| | | | Relays | | |
| RY4001,4002 | | VSY1015 | | 2 | AG-6200 only |
| RY4003 | | VSY2027 | | 1 | AG-6200 only |
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| | | | Connectors | | |
| P4001 | | VJP1231 | 4P | 1 | AG-6200 only |
| P4002 | | VJP1230 | 3P | 1 | |
| P4003 | | VJP1230 | 3P | 1 | |
| P4004 | | VJP1233 | 6P | 1 | |
| P4005 | | VJP1229 | 2P | 1 | |
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| | | | Test Terminals | | |
| TP4001,4002 | | TJE98101 | | 2 | |
| TP4003,4004 | | TJE98101 | | 2 | |
| TP4006 | | TJE98101 | | 1 | |
| TP GND | | TJE98101 | | 1 | |
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| | | VEP04094A/B | Audio (2) C.B.A. | | |
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| | | | Integrated Circuits | | |
| IC4003 | | NE646N | | 1 | ® |
| IC4007 | | NE646N | | 1 | ® |
| IC4009 | | AN6912 | | 1 | or μPC339 ® |
| | | | | | AG-6200 only |
| IC4012 | | μPD4066BC | | 1 | ® |
| IC4013 | | NJM4556D | | 1 | ® |
| IC4014 | | μPD4066BC | | 1 | ® |
| IC4015,4016 | | μPD4558C | | 2 | ® |
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| | | | Transistors | | |
| Q4045 | | 2SD636 | | 1 | (Q,R) AG-6200 only |
| Q4048,4049 | | 2SD636 | | 2 | (Q,R) AG-6200 only |
| Q4071,4072 | | 2SD636 | | 2 | (Q,R) |
| Q4073 | | 2SB641 | | 1 | (Q,R) |
| Q4074-4076 | | 2SD655 | | 3 | |
| Q4077 | | 2SD973A | | 1 | (R) AG-6200 only |
| Q4078 | | 2SD636 | | 1 | (Q,R) AG-6200 only |
| Q4079 | | 2SD973A | | 1 | (R) AG-6200 only |
| Q4080 | | 2SB643 | | 1 | (Q,R,S) AG-6200 only |
| Q4081 | | 2SB643 | | 1 | (R) AG-6200 only |
| Q4082,4083 | | 2SD655 | | 2 | |
| Q4090 | | 2SD636 | | 1 | (Q,R) |
| Q4100 | | 2SD636 | | 1 | (Q,R) AG-6200 only |
| Q4112-4115 | | 2SD636 | | 4 | (Q,R) |
| Q4124,4125 | | 2SD636 | | 2 | (Q,R) |
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| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | | Diodes | | |
| D4009 | | MA165 | | 1 | |
| D4021 | | MA165 | | 1 | |
| D4040 | | MA165 | | 1 | AG-6200 only |
| D4061,4062 | | OA90 | | 2 | AG-6200 only |
| D4063 | | MA165 | | 1 | |
| D4064,4065 | | OA90 | | 2 | AG-6200 only |
| D4066 | | MA165 | | 1 | |
| D4067 | | MA165 | | 1 | AG-6200 only |
| D4081 | | MA165 | | 1 | |
| D4098 | | MA165 | | 1 | AG-6200 only |
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| | | | Resistors | | |
| R4074,4075 | | ERDS2TJ102 | 1K | 2 | |
| R4076 | | ERD25TJ184 | 180K | 1 | |
| R4077 | | ERDS2TJ274 | 270K | 1 | |
| R4079 | | ERDS2TJ473 | 47K | 1 | |
| R4080 | | ERDS2TJ332 | 3.3K | 1 | |
| R4081 | | ERDS2TJ181 | 180 | 1 | |
| R4082 | | ERDS2TJ102 | 1K | 1 | |
| R4148,4149 | | ERDS2TJ102 | 1K | 2 | |
| R4150 | | ERD25TJ184 | 180K | 1 | |
| R4152 | | ERDS2TJ274 | 270K | 1 | |
| R4153 | | ERDS2TJ473 | 47K | 1 | |
| R4154 | | ERDS2TJ332 | 3.3K | 1 | |
| R4155 | | ERDS2TJ181 | 180 | 1 | |
| R4156 | | ERDS2TJ102 | 1K | 1 | |
| R4217,4218 | | ERDS2TJ103 | 10K | 2 | AG-6200 only |
| R4219 | | ERDS2TJ564 | 560K | 1 | AG-6200 only |
| R4220 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4221 | | ERDS2TJ563 | 56K | 1 | AG-6200 only |
| R4222,4223 | | ERDS2TJ103 | 10K | 2 | AG-6200 only |
| R4224 | | ERDS2TJ332 | 3.3K | 1 | AG-6200 only |
| R4225 | | ERDS2TJ105 | 1M | 1 | AG-6200 only |
| R4226 | | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R4235 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R4236 | | ERDS2TJ474 | 470K | 1 | AG-6200 only |
| R4237 | | ERDS2TJ563 | 56K | 1 | AG-6200 only |
| R4238 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R4239,4240 | | ERDS2TJ223 | 22K | 2 | AG-6200 only |
| R4241 | | ERDS2TJ563 | 56K | 1 | AG-6200 only |
| R4242 | | ERDS2TJ105 | 1M | 1 | AG-6200 only |
| R4243 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4244 | | ERDS2TJ104 | 100K | 1 | AG-6200 only |
| R4245 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4246 | | ERDS2TJ332 | 3.3K | 1 | AG-6200 only |
| R4247 | | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R4248 | | ERDS2TJ332 | 3.3K | 1 | AG-6200 only |
| R4249 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4250 | | ERDS2TJ821 | 820 | 1 | AG-6200 only |
| R4251 | | ERDS2TJ560 | 56 | 1 | AG-6200 only |
| R4252 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R4253 | | ERDS2TJ472 | 4.7K | 1 | AG-6200 only |
| R4254 | | EVM38GA00B53 | Variable 5K | 1 | AG-6200 only |
| R4255 | | ERDS2TJ332 | 3.3K | 1 | AG-6200 only |
| R4256 | | ERDS2TJ152 | 1.5K | 1 | AG-6200 only |
| R4257-4259 | | ERDS2TJ223 | 22K | 3 | AG-6200 only |
| R4263,4264 | | ERDS2TJ104 | 100K | 2 | |
| R4306 | | ERDS2TJ393 | 39K | 1 | |
| R4307 | | ERDS2TJ683 | 68K | 1 | |
| R4308,4309 | | ERDS2TJ102 | 1K | 2 | |
| R4310 | | ERDS2TJ563 | 56K | 1 | |
| R4315 | | ERDS2TJ223 | 22K | 1 | |
| R4316,4317 | | ERDS2TJ103 | 10K | 2 | |
| R4318 | | ERDS2TJ333 | 33K | 1 | |
| R4319 | | ERDS2TJ102 | 1K | 1 | |

# Audio (2) C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R4320 | | ERDS2TJ561 | 560 | 1 | |
| R4321 | | ERDS2TJ470 | 47 | 1 | |
| R4327 | | ERDS2TJ393 | 39K | 1 | |
| R4328 | | ERDS2TJ683 | 68K | 1 | |
| R4329,4330 | | ERDS2TJ102 | 1K | 2 | |
| R4331 | | ERDS2TJ563 | 56K | 1 | |
| R4336 | | ERDS2TJ223 | 22K | 1 | |
| R4337,4338 | | ERDS2TJ103 | 10K | 2 | |
| R4339 | | ERDS2TJ333 | 33K | 1 | |
| R4340 | | ERDS2TJ102 | 1K | 1 | |
| R4341 | | ERDS2TJ561 | 560 | 1 | |
| R4342 | | ERDS2TJ470 | 47 | 1 | |
| R4343-4346 | | ERDS2TJ103 | 10K | 4 | |
| R4347,4348 | | EVM38GA00B53 | Variable 5K | 2 | AG-6200 only |
| R4349 | | ERDS2TJ183 | 18K | 1 | AG-6200 only |
| R4350 | | ERD25TJ4R7 | 4.7 | 1 | AG-6200 only |
| R4353,4354 | | ERDS2TJ103 | 10K | 2 | AG-6200 only |
| R4355 | | ERD25TJ4R7 | 4.7 | 1 | AG-6200 only |
| R4356 | | ERDS2TJ183 | 18K | 1 | AG-6200 only |
| R4357 | | ERDS2TJ332 | 3.3K | 1 | AG-6200 only |
| R4358 | | ERDS2TJ123 | 12K | 1 | AG-6200 only |
| R4359 | | ERDS2TJ104 | 100K | 1 | |
| R4360 | | ERDS2TJ102 | 1K | 1 | |
| | | | | | |
| R4361 | | ERDS2TJ273 | 27K | 1 | |
| R4362 | | ERDS2TJ221 | 220 | 1 | |
| R4363 | | ERDS2TJ104 | 100K | 1 | |
| R4364 | | ERDS2TJ104 | 100K | 1 | |
| R4365 | | ERDS2TJ274 | 270K | 1 | |
| R4366-4368 | | ERDS2TJ103 | 10K | 3 | |
| R4369 | | ERDS2TJ102 | 1K | 1 | |
| R4370 | | ERDS2TJ563 | 56K | 1 | |
| R4371 | | ERDS2TJ561 | 560 | 1 | |
| R4380 | | ERDS2TJ123 | 12K | 1 | AG-6200 only |
| R4381,4382 | | ERDS2TJ103 | 10K | 2 | |
| R4383,4384 | | ERDS2TJ102 | 1K | 2 | |
| R4390 | | ERDS2TJ472 | 4.7K | 1 | AG-6200 only |
| R4402 | | ERDS2TJ183 | 18K | 1 | AG-6200 only |
| R4403,4404 | | ERDS2TJ101 | 100 | 2 | |
| R4429 | | ERDS2TJ333 | 33K | 1 | |
| R4430,4431 | | ERDS2TJ103 | 10K | 2 | |
| R4432 | | ERDS2TJ333 | 33K | 1 | |
| R4433,4434 | | ERDS2TJ103 | 10K | 2 | |
| R4435,4436 | | ERDS2TJ102 | 1K | 2 | |
| | | | | | |
| | | | | | |
| | | | | | |
| R4494 | | ERDS2TJ333 | 33K | 1 | |
| R4495 | | ERDS2TJ103 | 10K | 1 | |
| R4496 | | ERDS2TJ333 | 33K | 1 | |
| R4497 | | ERDS2TJ103 | 10K | 1 | |
| R4498 | | ERDS2TJ333 | 33K | 1 | |
| R4499 | | ERDS2TJ103 | 10K | 1 | |
| R4500 | | ERDS2TJ153 | 15K | 1 | |
| R4501 | | ERDS2TJ333 | 33K | 1 | |
| R4502 | | ERDS2TJ103 | 10K | 1 | |
| R4503 | | ERDS2TJ153 | 15K | 1 | |
| R4506 | | ERDS2TJ224 | 220K | 1 | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | Capacitors | | |
| C4036 | | ECEA0JS221 | Electrolytic 6.3V 220 | 1 | |
| C4037 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4038 | | ECQV05334JZ | Mylar 50V 0.33 | 1 | |
| C4039 | | ECQV05104JB | Mylar 50V 0.1 | 1 | |
| C4040 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4041 | | ECQV05473JZ | Mylar 50V 0.047 | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C4042 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C4044 | | ECQM1H472KZ | Mylar 50V 4700P | 1 | |
| C4045 | | ECQV05273JZ | Mylar 50V 0.027 | 1 | |
| C4046 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | |
| C4047 | | ECQM1H562KZ | Mylar 50V 5600P | 1 | |
| C4048 | | ECQM1H472KZ | Mylar 50V 4700P | 1 | |
| C4049 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4095 | | ECEA0JS221 | Electrolytic 6.3V 220 | 1 | |
| C4096 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4097 | | ECQM1H472KZ | Mylar 50V 4700P | 1 | |
| C4098 | | ECQV05273JZ | Mylar 50V 0.027 | 1 | |
| C4099 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | |
| C4100 | | ECQM1H562KZ | Mylar 50V 5600P | 1 | |
| C4101 | | ECQM1H472KZ | Mylar 50V 4700P | 1 | |
| C4102 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C4103 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4104 | | ECEA1HS100 | Electrolytic 50V 1 | 1 | |
| | | | | | |
| C4108 | | ECQV05334JZ | Mylar 50V 0.33 | 1 | |
| C4109 | | ECQV05104JB | Mylar 50V 0.1 | 1 | |
| C4110 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4111 | | ECQV05473JZ | Mylar 50V 0.047 | 1 | |
| C4112 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C4160 | | ECEA1CS330 | Electrolytic 16V 33 | 1 | AG-6200 only |
| C4168 | | ECEA1HN010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4169 | | ECEA1ES4R7 | Electrolytic 25V 4.7 | 1 | AG-6200 only |
| C4170 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | AG-6200 only |
| C4171 | | ECEA0JS101 | Electrolytic 6.3V 100 | 1 | AG-6200 only |
| C4172 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4173 | | ECEA1HN010 | Electrolytic 50V 1 | 1 | AG-6200 only |
| C4174 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | AG-6200 only |
| C4175 | | ECEA1CS330 | Electrolytic 16V 33 | 1 | AG-6200 only |
| C4204 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4206 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4207 | | ECEA1ES4R7 | Electrolytic 25V 4.7 | 1 | AG-6200 only |
| C4208,4209 | | ECEA1CS100 | Electrolytic 16V 10 | 2 | |
| C4210 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | |
| C4211 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C4213 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4217 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C4219 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C4220 | | ECEA1ES4R7 | Electrolytic 25V 4.7 | 1 | AG-6200 only |
| C4221,4222 | | ECEA1CS100 | Electrolytic 16V 10 | 2 | |
| C4223 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | |
| C4224 | | ECEA1CS101 | Electrolytic 16V 100 | 1 | |
| C4226,4227 | | ECEA1CS100 | Electrolytic 16V 10 | 2 | |
| C4228 | | ECQM1H332KZ | Mylar 50V 3300P | 1 | AG-6200 only |
| C4229 | | ECQM1H472KZ | Mylar 50V 4700P | 1 | AG-6200 only |
| C4231,4232 | | ECKD2H151KB | Ceramic 500V 150P | 2 | AG-6200 only |
| C4233 | | ECQF6182KZ | Mylar 630V 1800P | 1 | AG-6200 only |
| C4234 | | ECQV05124JZ | Mylar 50V 0.12 | 1 | AG-6200 only |
| C4236 | | ECQM1H103JZ | Mylar 50V 0.01 | 1 | AG-6200 only |
| C4237 | | ECQV05333JZ | Mylar 50V 0.033 | 1 | AG-6200 only |
| C4238 | | ECQM2333KZ | Mylar 200V 0.033 | 1 | AG-6200 only |
| C4239 | | ECEA1HS2R2 | Electrolytic 50V 2.2 | 1 | |
| C4240 | | ECEA1ES100 | Electrolytic 25V 10 | 1 | |
| C4250 | | ECEA1HS4R7 | Electrolytic 50V 4.7 | 1 | AG-6200 only |
| C4260,4261 | | ECEA1CS100 | Electrolytic 16V 10 | 2 | AG-6200 only |
| C4262,4263 | | ECEA1CS101 | Electrolytic 16V 100 | 2 | AG-6200 only |
| C4301,4302 | | ECEA1CS470 | Electrolytic 16V 47 | 2 | |
| C4305,4306 | | ECEA1CS101 | Electrolytic 16V 100 | 2 | |
| C4316,4317 | | ECEA1CS100 | Electrolytic 16V 10 | 2 | |
| C4329,4330 | | ECQM1H102JZ | Mylar 50V 1000P | 2 | |
| C4342 | | ECQM1H102JZ | Mylar 50V 1000P | 1 | AG-6200 only |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | | Coils | | |
| L4001 | | VLF0166 | Dolby Filter | 1 | |
| L4004 | | VLF0166 | Dolby Filter | 1 | |
| L4013 | | VLQ80F102K | Choke 1mH | 1 | AG-6200 only |
| L4021,4022 | | VLQ80F102K | Choke 1mH | 2 | |
| L4023,4024 | | VLQ24F102K25 | Choke 1mH | 2 | AG-6200 only |
| L4025-4027 | | VLQ80F102K | Choke 1mH | 3 | |
| | | | Transformers | | |
| T4001 | | VLT0147 | | 1 | AG-6200 only |
| T4002 | | VLT0118A | | 1 | AG-6200 only |
| | | | Relay | | |
| RY4004 | | VSY2032 | | 1 | AG-6200 only |
| | | | Connectors | | |
| P4006 | | VJP1232 | 5P | 1 | AG-6200 only |
| P4007 | | VJP1231 | 4P | 1 | |
| P4008 | | VJP1231 | 4P | 1 | |
| P4009 | | VJP1230 | 3P | 1 | |
| P4010 | | VJP1233 | 6P | 1 | |
| P4011 | | VJP1232 | 5P | 1 | |
| P4012 | | VJP1232 | 5P | 1 | AG-6200 only |
| P4013 | | VJP1230 | 3P | 1 | AG-6200 only |
| P4014 | | VJP1232 | 5P | 1 | AG-6200 only |
| | | | Miscellaneous | | |
| | | VMP0330 | Audio C.B.A. Angle (T) | 1 | |
| | | VMP0331 | Audio C.B.A. Angle (B) | 1 | |
| | | XTV3+6F | Screw | 6 | |
| | | VSC0994 | Shield Board | 1 | |
| | | VWJ0093 | 19P Cable | 1 | |
| | | VWJ0094 | 12P Cable | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VEP06190B1 | System Control C.B.A. | | |
| | | | Integrated Circuits | | |
| IC6001 | | µPC399C | | 1 | Ⓡ |
| IC6002 | | HD7406P | | 1 | Ⓡ |
| IC6003 | | µPD1512AC044 | | 1 | Ⓡ |
| IC6004,6005 | | BA6209 | | 2 | Ⓡ |
| IC6006 | | BAL872 | | 1 | Ⓡ |
| IC6007 | | µPC358C | | 1 | Ⓡ |
| IC6008 | | PU4310 | | 1 | Ⓡ |
| IC6009 | | HD74LS148P | | 1 | Ⓡ |
| IC6010 | | µPD4011BC | | 1 | Ⓡ |
| IC6011 | | HD7406P | | 1 | Ⓡ |
| IC6012 | | HD7407P | | 1 | Ⓡ |
| IC6013 | | µPC358C | | 1 | Ⓡ |
| | | | Transistors | | |
| Q6003,6004 | | 2SD636 | | 2 | (Q,R) |
| Q6005 | | 2SB819 | | 1 | (P,Q,R) |
| Q6006-6008 | | 2SD636 | | 3 | (Q,R) |
| Q6009 | | 2SD637 | | 1 | (P,Q,R) |
| Q6010 | | 2SB644 | | 1 | (P,Q,R) |
| Q6011 | | 2SB643 | | 1 | (P,Q,R) |
| Q6012 | | 2SB643 | | 1 | (P,Q,R) |
| Q6013 | | 2SB819 | | 1 | (P,Q,R) |
| Q6019,6020 | | 2SD636 | | 2 | (P,Q,R) |
| Q6021,6022 | | 2SD636 | | 2 | (Q,R) |
| Q6024 | | 2SD636 | | 1 | (Q,R) |
| Q6025 | | 2SB641 | | 1 | (P,Q,R) |
| Q6026-6030 | | 2SD636 | | 5 | (Q,R) |
| Q6032,6033 | | 2SD636 | | 2 | (Q,R) |
| Q6034 | | 2SB641 | | 1 | (P,Q,R) |
| Q6035-6037 | | 2SD636 | | 3 | (Q,R) |
| Q6038 | | 2SB641 | | 1 | (P,Q,R) |
| Q6039-6042 | | 2SD636 | | 4 | (Q,R) |
| Q6044-6048 | | 2SD636 | | 5 | (Q,R) |
| Q6051 | | 2SD636 | | 1 | (Q,R) |
| Q6052 | | 2SD1275 | | 1 | (P,Q,R) ⚠ |
| Q6053-6057 | | 2SD636 | | 5 | (Q,R) |
| | | | Diodes | | |
| D6001 | | 10E1 | | 1 | |
| D6010 | | 10E1 | | 1 | |
| D6012 | | 10E1 | | 1 | |
| D6014 | | RD10FB | Zener | 1 | Ⓡ |
| D6017 | | HZ4BLL | Zener | 1 | Ⓡ |
| D6018 | | MA165 | | 1 | |
| D6024 | | 10E1 | | 1 | |
| D6027 | | RD10EB | Zener | 1 | Ⓡ |
| D6029-6031 | | MA165 | | 3 | |
| D6035-6037 | | MA165 | | 3 | |
| D6043,6044 | | MA165 | | 2 | |
| D6045 | | HZ3CLL | Zener | 1 | Ⓡ |
| D6046-6048 | | MA165 | | 3 | |
| D6050-6052 | | MA165 | | 3 | |
| D6057 | | MA165 | | 1 | |
| D6058 | | MA1075 | Zener | 1 | |
| D6059-6068 | | MA165 | | 10 | |
| D6070,6071 | | MA165 | | 2 | |

# System Control C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | Resistors | | |
| R6001 | | ERDS2TJ103 | 10K | 1 | |
| R6002 | | ERDS2TJ391 | 390 | 1 | |
| R6006 | | ERDS2TJ224 | 220K | 1 | |
| R6007 | | ERDS2TJ223 | 22K | 1 | |
| R6008 | | ERDS2TJ103 | 10K | 1 | |
| R6009 | | ERD25TJ225 | 2.2M | 1 | |
| R6011 | | ERDS2TJ224 | 220K | 1 | |
| R6012 | | ERDS2TJ473 | 47K | 1 | |
| R6013 | | ERDS2TJ472 | 4.7K | 1 | |
| R6014 | | ERDS2TJ473 | 47K | 1 | |
| R6015 | | ERDS2TJ333 | 33K | 1 | |
| R6016 | | ERDS2TJ103 | 10K | 1 | |
| R6017 | | ERDS2TJ680 | 68 | 1 | |
| R6018 | | ERDS2TJ105 | 1M | 1 | |
| R6019 | | ERDS2TJ224 | 220K | 1 | |
| R6020 | | ERDS2TJ105 | 1M | 1 | |
| R6021 | | ERDS2TJ184 | 180K | 1 | |
| E6022 | | ERDS2TJ103 | 10K | 1 | |
| R6023 | | ERDS2TJ153 | 15K | 1 | |
| R6028-6030 | | ERDS2TJ103 | 10K | 3 | |
| R6035 | | ERDS2TJ103 | 10K | 1 | |
| R6040,6041 | | ERDS2TJ682 | 6.8K | 2 | |
| R6042,6043 | | ERDS2TJ223 | 22K | 2 | |
| R6044,6045 | | ERDS2TJ153 | 15K | 2 | |
| R6046 | | ERDS2TJ103 | 10K | 1 | |
| R6051,6052 | | ERDS2TJ103 | 10K | 2 | |
| R6053,6054 | | ERDS2TJ222 | 2.2K | 2 | |
| R6055,6056 | | ERD50TJ181 | 1/2W 180 | 2 | |
| R6057-6060 | | ERDS2TJ472 | 4.7K | 4 | |
| R6061,6062 | | ERDS2TJ102 | 1K | 2 | |
| R6063 | | ERDS2TJ563 | 56K | 1 | |
| R6064 | | ERDS2TJ393 | 39K | 1 | |
| R6071 | | ERDS2TJ103 | 10K | 1 | |
| R6072 | | ERDS2TJ150 | 15 | 1 | |
| R6073 | | ERDS2TJ103 | 10K | 1 | |
| R6075 | | ERDS2TJ104 | 100K | 1 | |
| R6076 | | ERG1ANJ101 | Metal Oxide 1W 100 | 1 | |
| R6078 | | ERDS2TJ223 | 22K | 1 | |
| R6080 | | ERDS2TJ182 | 1.8K | 1 | |
| R6081 | | ERDS2TJ223 | 22K | 1 | |
| R6086 | | ERDS2TJ102 | 1K | 1 | |
| R6088 | | ERDS2TJ103 | 10K | 1 | |
| R6101 | | ERX1ANJR82 | Metal Oxide 1W 0.82 | 1 | |
| R6102 | | ERDS2TJ473 | 47K | 1 | |
| R6103 | | EVM38GA00B53 | Variable 5K | 1 | |
| R6104 | | ERDS2TJ102 | 1K | 1 | |
| R6105 | | ERD50TJ221 | 1/2W 220 | 1 | |
| R6106 | | ERDS2TJ102 | 1K | 1 | |
| R6108 | | ERDS2TJ102 | 1K | 1 | |
| R6109 | | ERX1ANJ1R0 | Metal Oxide 1W 1.0 | 1 | |
| R6110 | | ERDS2TJ154 | 150K | 1 | |
| R6111,6112 | | ERDS2TJ102 | 1K | 2 | |
| R6113 | | ERD50TJ221 | 1/2W 220 | 1 | |
| R6114 | | ERDS2TJ222 | 2.2K | 1 | |
| R6115 | | ERDS2TJ103 | 10K | 1 | |
| R6119 | | ERDS2TJ102 | 1K | 1 | |
| R6120 | | ERDS2TJ103 | 10K | 1 | |
| R6121,6122 | | ERDS2TJ333 | 33K | 2 | |
| R6123 | | ERDS2TJ151 | 150 | 1 | |
| R6124,6125 | | ERDS2TJ154 | 150K | 2 | |
| R6126 | | ERDS2TJ103 | 10K | 1 | |
| R6127 | | ERDS2TJ472 | 4.7K | 1 | |
| R6128,6129 | | ERDS2TJ104 | 100K | 2 | |
| R6130 | | ERDS2TJ562 | 5.6K | 1 | |
| R6131 | | ERDS2TJ103 | 10K | 1 | |
| R6132,6133 | | ERDS2TJ104 | 100K | 2 | |
| R6135 | | ERDS2TJ104 | 100K | 1 | |
| R6136 | | ERDS2TJ105 | 1M | 1 | |
| R6137 | | ERDS2TJ104 | 100K | 1 | |
| R6138 | | ERDS2TJ272 | 2.7K | 1 | |
| R6142 | | ERDS2TJ105 | 1M | 1 | |
| R6143,6144 | | ERDS2TJ564 | 560K | 2 | |
| R6145 | | ERDS2TJ123 | 12K | 1 | |
| R6146 | | ERDS2TJ103 | 10K | 1 | |
| R6147,6148 | | ERDS2TJ224 | 220K | 2 | |
| R6149 | | ERDS2TJ334 | 330K | 1 | |
| R6151 | | ERDS2TJ563 | 560k | 1 | |
| R6153-6155 | | ERDS2TJ104 | 100K | 3 | |
| R6156 | | ERDS2TJ564 | 560K | 1 | |
| R6158 | | ERDS2TJ103 | 10K | 1 | |
| R6159 | | ERDS2TJ105 | 1M | 1 | |
| R6160 | | ERDS2TJ824 | 820K | 1 | |
| R6161 | | ERDS2TJ103 | 10K | 1 | |
| R6162 | | ERDS2TJ102 | 1K | 1 | |
| R6163,6164 | | ERDS2TJ103 | 10K | 2 | |
| R6165 | | ERDS2TJ472 | 4.7K | 1 | |
| R6166 | | ERDS2TJ104 | 100K | 1 | |
| R6167,6168 | | ERDS2TJ103 | 10K | 2 | |
| R6169 | | ERDS2TJ104 | 100K | 1 | |
| R6170 | | ERDS2TJ103 | 10K | 1 | |
| R6171 | | ERDS2TJ683 | 68K | 1 | |
| R6172 | | ERDS2TJ105 | 1M | 1 | |
| R6173 | | ERDS2TJ334 | 330K | 1 | |
| R6174 | | ERDS2TJ105 | 1M | 1 | |
| R6178,6179 | | ERDS2TJ105 | 1M | 2 | |
| R6180 | | ERDS2TJ824 | 820K | 1 | |
| R6183 | | ERDS2TJ104 | 100K | 1 | |
| R6184 | | ERDS2TJ102 | 1K | 1 | |
| R6185,6186 | | ERDS2TJ104 | 100K | 2 | |
| R6187 | | ERDS2TJ472 | 4.7K | 1 | |
| R6188 | | ERDS2TJ564 | 560K | 1 | |
| R6195 | | ERDS2TJ103 | 10K | 1 | |
| R6196 | | ERDS2TJ334 | 330K | 1 | |
| R6197 | | ERDS2TJ103 | 10K | 1 | |
| R6198 | | ERX1ANJR68 | Metal Oxide 1W 0.68 | 1 | |
| R6199 | | ERDS2TJ820 | 82 | 1 | |
| R6200 | | ERDS2TJ102 | 1K | 1 | |
| R6202,6203 | | ERDS2TJ563 | 56K | 2 | |
| R6204 | | ERDS2TJ562 | 5.6K | 1 | |
| R6205 | | ERDS2TJ222 | 2.2K | 1 | |
| R6206 | | ERDS2TJ563 | 56K | 1 | |
| R6207 | | ERDS2TJ274 | 270K | 1 | |
| R6208 | | ERDS2TJ104 | 100K | 1 | |
| R6209 | | ERDS2TJ274 | 270K | 1 | |
| R6210 | | ERDS2TJ563 | 56K | 1 | |
| R6211 | | ERDS2TJ105 | 1M | 1 | |
| R6212 | | ERDS2TJ104 | 100K | 1 | |
| R6213 | | ERDS2TJ105 | 1M | 1 | |
| R6214 | | ERDS2TJ273 | 27K | 1 | |
| R6215 | | ERDS2TJ394 | 390K | 1 | |
| R6217 | | ERDS2TJ154 | 150K | 1 | |
| R6219 | | ERDS2TJ394 | 390K | 1 | |
| R6222,6223 | | ERDS2TJ102 | 1K | 2 | |
| R6224 | | ERQ12HK1R5 | Metal Fuse 1/2W 1.5K | 1 | |
| R6225 | | ERDS2TJ104 | 100K | 1 | |
| R6226,6227 | | ERDS2TJ105 | 1M | 2 | |
| R6228 | | ERDS2TJ104 | 100K | 1 | |
| R6229 | | ERDS2TJ334 | 330K | 1 | |
| R6230 | | ERDS2TJ123 | 12K | 1 | |
| R6231 | | ERDS2TJ222 | 2.2K | 1 | |
| | | | | | |
| | | | Capacitors | | |
| C6001 | | ECCF1H181KC | Ceramic 50V 180P | 1 | |
| C6002 | | ECKF1H331KB | Ceramic 50V 330P | 1 | |
| C6004-6008 | | ECEA1HS010 | Electrolytic 50V 1 | 5 | |
| C6009 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | |
| C6010 | | VCE0004 | Electrolytic 10V 0.043F | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C6013 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | |
| C6014 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C6015 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C6016 | | ECQV05104JB | Mylar 50V 0.1 | 1 | |
| C6017,6018 | | ECEA1ES101 | Electrolytic 25V 100 | 2 | |
| C6020-6023 | | ECKF1H103ZF | Ceramic 50V 0.01 | 4 | |
| C6024,6025 | | ECCF1H680KC | Ceramic 50V 68P | 2 | |
| C6026 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C6027 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C6032,6033 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C6034 | | ECKF1H472KB | Ceramic 50V 4700P | 1 | |
| C6035,6036 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C6038 | | ECEA1ES470 | Electrolytic 25V 47 | 1 | |
| C6039 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | |
| C6040 | | ECQM1H823JZ | Mylar 50V 0.082 | 1 | |
| C6041 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C6042 | | ECEA50ZR47 | Electrolytic 50V 0.47 | 1 | |
| C6043 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C6044 | | ECKF1H102KB | Ceramic 50V 1000P | 1 | |
| C4046 | | ECQV05334JZ | Mylar 50V 0.33 | 1 | |
| C4047 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C6048 | | ECEA1CS220 | Electrolytic 16V 22 | 1 | |
| C6049 | | ECCF1H560KC | Ceramic 50V 56P | 1 | |
| C6050 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| C6051 | | ECEA1HS100 | Electrolytic 50V 1 | 1 | |
| C6052 | | ECEA1CK100 | Electrolytic 16V 10 | 1 | |
| C6053 | | ECQV05334JZ | Mylar 50V 0.33 | 1 | |
| C6054 | | ECEA1HKR33 | Electrolytic 50V 0.33 | 1 | |
| C6055 | | ECEA1CK100 | Electrolytic 16V 10 | 1 | |
| C6057 | | ECEA1HK010 | Electrolytic 50V 1 | 1 | |
| C6058 | | ECEA1CK100 | Electrolytic 16V 10 | 1 | |
| C6059 | | ECEA1HS4R7 | Electrolytic 50V 4.7 | 1 | |
| | | | Coil | | |
| L6001 | | VLQ80F470K | 47μH | 1 | |
| | | | Resistor Arrays | | |
| RA6001 | | EXBP86103J | 10Kx6 | 1 | |
| RA6002 | | EXBP86103K | 10Kx6 | 1 | |
| RA6003 | | EXBP87103K | 10Kx7 | 1 | |
| RA6004 | | EXBP84103K | 10Kx4 | 1 | |
| | | | Crystals | | |
| X6001 | | VSX0082 | | 1 | ® |
| X6002 | | VSX0115 | | 1 | ® |
| | | | Connectors | | |
| P6001,6002 | | VJP1232 | 5P | 2 | |
| P6003,6004 | | VJP1233 | 6P | 2 | |
| P6005 | | VJP1237 | 10P | 1 | |
| P6006 | | VJP1235 | 8P | 1 | |
| P6007 | | VJP1237 | 10P | 1 | |
| P6008 | | VJP1233 | 6P | 1 | |
| P6009 | | VJP1232 | 5P | 1 | |
| P6010 | | VJP1231 | 4P | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| P6011 | | VJP1230 | 3P | 1 | |
| P6012-6014 | | VJP1229 | 2P | 3 | |
| | | | Miscellaneous | | |
| TP1 | | VJH23 | Test Terminal | 1 | |
| | | VMP0326 | C.B.A. Angle (T) | 1 | |
| | | XTV3+8F | Screw | 3 | |
| | | VEP03164C/D | Luminance & Chrominance<br>C.B.A. | | |
| | | | Integrated Circuits | | |
| IC3001 | | AN6310 | | 1 | AG-6200 only ® |
| IC3002,3003 | | AN6320N | | 2 | ® |
| IC3004 | | μPD4066BC | | 1 | ® |
| IC3005 | | SN76670N | | 1 | ® |
| IC3006 | | AN6332 | | 1 | ® |
| IC8301 | | AN6360 | | 1 | ® |
| IC8302 | | AN6362 | | 1 | ® |
| IC8303 | | AN6371 | | 1 | ® |
| IC8304 | | AN6361N | | 1 | ® |
| | | | Transistors | | |
| Q3001 | | 2SB643 | | 1 | (Q,R) AG—6200 only |
| Q3002 | | 2SC2206 | | 1 | (B,C) AG—6200 only |
| Q3003-3006 | | 2SD636 | | 4 | (Q,R) AG—6200 only |
| Q3007 | | 2SC2377 | | 1 | (B,C) AG—6200 only |
| Q3008 | | 2SC2206 | | 1 | (B,C) AG—6200 only |
| Q3009 | | 2SB641 | | 1 | (Q,R) AG—6200 only |
| Q3010 | | 2SD638 | | 1 | (Q,R) AG—6200 only |
| Q3011-3014 | | 2SD638 | | 4 | (Q,R) |
| Q3015,3016 | | 2SD636 | | 2 | (Q,R) |
| Q3017,3018 | | 2SC2206 | | 2 | (B,C) |
| Q3019,3020 | | 2SD636 | | 2 | (Q,R) |
| Q3021,3022 | | 2SC2206 | | 2 | (B,C) |

# Luminance & Chrominance C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| Q3023 | | 2SB641 | | 1 | (Q,R) |
| Q3024 | | 2SC2206 | | 1 | (B,C) |
| Q3025 | | 2SB641 | | 1 | (Q,R) |
| Q3026,3027 | | 2SC2206 | | 2 | (B,C) |
| Q3028 | | 2SD636 | | 1 | (Q,R) |
| Q3030 | | 2SB641 | | 1 | (Q,R) |
| Q3031 | | 2SD636 | | 1 | (Q,R) |
| Q3032 | | 2SB641 | | 1 | (Q,R) |
| Q3033 | | 2SD636 | | 1 | (Q,R) |
| Q3034 | | 2SC2206 | | 1 | (B,C) |
| Q3035 | | 2SD636 | | 1 | (Q,R) |
| Q3041 | | 2SD1266 | | 1 | (P,Q) AG-6200 only |
| Q3042-3044 | | 2SD636 | | 3 | (Q,R) AG-6200 only |
| Q3045 | | 2SC2206 | | 1 | (B,C) |
| | | | | | |
| | | | | | |
| Q8301 | | 2SD636 | | 1 | (Q,R) |
| Q8304 | | 2SD636 | | 1 | (Q,R) |
| Q8305 | | 2SD636 | | 1 | (Q,R) AG-6200 only |
| Q8306,8307 | | 2SD636 | | 2 | (Q,R) |
| Q8308 | | 2SC2206 | | 1 | (B,C) |
| Q8309-8312 | | 2SD636 | | 4 | (Q,R) |
| Q8313 | | 2SD889 | | 1 | (Q,R) |
| Q8316-8319 | | 2SD636 | | 4 | (Q,R) |
| Q8325 | | 2SD636 | | 1 | (Q,R) |
| Q8330,8331 | | 2SD636 | | 2 | (Q,R) |
| Q8336 | | 2SD636 | | 1 | (Q,R) |
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| | | | Diodes | | |
| D3001 | | MA165 | | 1 | AG-6200 only |
| D3002,3003 | | 1SS16 | | 2 | AG-6200 only |
| D3004,3005 | | MA165 | | 2 | AG-6200 only |
| D3006 | | MA165 | | 1 | |
| D3007 | | MA165 | | 1 | AG-6200 only |
| D3008-3010 | | MA165 | | 3 | |
| D3015 | | MA165 | | 1 | AG-6200 only |
| D3017 | | RD6.2EB | Zener | 1 | AG-6200 only |
| D3018 | | 1SS16 | | 1 | |
| D3019 | | MA165 | | 1 | |
| | | | | | |
| | | | | | |
| | | | | | |
| D8301 | | MA165 | | 1 | |
| D8302,8303 | | MA165 | | 2 | AG-6200 only |
| D8304-8310 | | MA165 | | 7 | |
| D8317-8319 | | MA165 | | 3 | |
| D8321-8327 | | MA165 | | 7 | |
| D8328 | | 1S1007 | | 1 | |
| | | | | | |
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| | | | | | |
| | | | Resistors | | |
| R3001,3002 | | ERDS2TJ102 | 1K | 2 | AG-6200 only |
| R3004 | | ERDS2TJ122 | 1.2K | 1 | AG-6200 only |
| R3005 | | EVM38GA00B53 | Variable 5K | 1 | AG-6200 only |
| R3006 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R3007 | | ERD25TJ334 | 330K | 1 | AG-6200 only |
| R3008,3009 | | ERDS2TJ332 | 3.3K | 2 | AG-6200 only |
| R3010 | | ERDS2TJ271 | 270 | 1 | AG-6200 only |
| R3011 | | ERDS2TJ222 | 2.2K | 1 | AG-6200 only |
| R3012,3013 | | ERDS2TJ102 | 1K | 2 | AG-6200 only |
| R3014 | | ERDS2TJ122 | 1.2K | 1 | AG-6200 only |
| R3016 | | ERDS2TJ681 | 680 | 1 | AG-6200 only |
| R3017 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R3018 | | EVM38GA00B53 | Variable 5K | 1 | AG-6200 only |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R3019 | | ERDS2TJ470 | 47 | 1 | AG-6200 only |
| R3020 | | ERDS2TJ821 | 820 | 1 | AG-6200 only |
| R3021 | | ERDS2TJ332 | 3.3K | 1 | AG-6200 only |
| R3023 | | ERDS2TJ182 | 1.8K | 1 | AG-6200 only |
| R3024 | | ERDS2TJ152 | 1.5K | 1 | AG-6200 only |
| R3025 | | ERDS2TJ561 | 560 | 1 | AG-6200 only |
| R3026 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R3027 | | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R3028,3029 | | EVM38GA00B53 | Variable 5K | 2 | AG-6200 only |
| R3030 | | ERDS2TJ562 | 5.6K | 1 | AG-6200 only |
| R3031 | | ERDS2TJ332 | 3.3K | 1 | AG-6200 only |
| R3032,3033 | | ERDS2TJ561 | 560 | 2 | AG-6200 only |
| R3034 | | ERDS2TJ223 | 22K | 1 | AG-6200 only |
| R3035 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R3036 | | ERDS2TJ222 | 2.2K | 1 | AG-6200 only |
| R3037 | | ERDS2TJ393 | 39K | 1 | AG-6200 only |
| R3038 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R3039 | | EVM38GA00B23 | Variable 2K | 1 | AG-6200 only |
| R3040 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R3041 | | ERDS2TJ473 | 47K | 1 | AG-6200 only |
| R3042 | | ERDS2TJ820 | 82 | 1 | AG-6200 only |
| R3043 | | ERDS2TJ821 | 820 | 1 | AG-6200 only |
| R3044 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R3045 | | ERDS2TJ682 | 6.8K | 1 | AG-6200 only |
| R3046 | | ERDS2TJ122 | 1.2K | 1 | AG-6200 only |
| R3047 | | ERDS2TJ152 | 1.5K | 1 | AG-6200 only |
| R3048 | | ERDS2TJ122 | 1.2K | 1 | AG-6200 only |
| R3049 | | ERDS2TJ221 | 220 | 1 | AG-6200 only |
| R3050 | | ERDS2TJ560 | 56 | 1 | AG-6200 only |
| R3051 | | EVM38GA00B23 | Variable 2K | 1 | AG-6200 only |
| R3052 | | ERDS2TJ682 | 6.8K | 1 | AG-6200 only |
| R3053,3054 | | ERDS2TJ560 | 56 | 2 | AG-6200 only |
| R3055 | | ERDS2TJ152 | 1.5K | 1 | AG-6200 only |
| R3056 | | ERDS2TJ681 | 680 | 1 | AG-6200 only |
| R3057 | | ERDS2TJ100 | 10 | 1 | |
| R3058 | | ERDS2TJ272 | 2.7K | 1 | |
| R3059 | | ERDS2TJ100 | 10 | 1 | |
| R3060 | | ERDS2TJ272 | 2.7K | 1 | |
| R3061,3062 | | ERDS2TJ473 | 47K | 2 | |
| R3063 | | EVM38GA00B13 | Variable 1K | 1 | |
| R3064 | | ERDS2TJ391 | 390 | 1 | |
| R3065 | | ERDS2TJ103 | 10K | 1 | |
| R3066 | | ERDS2TJ822 | 8.2K | 1 | |
| R3067 | | EVM38GA00B23 | Variable 2K | 1 | |
| R3068 | | ERDS2TJ102 | 1K | 1 | |
| R3069 | | EVM38GA00B23 | Variable 2K | 1 | |
| R3070 | | ERDS2TJ822 | 8.2K | 1 | |
| R3071 | | ERDS2TJ391 | 390 | 1 | |
| R3072 | | EVM38GA00B13 | Variable 1K | 1 | |
| R3073 | | ERDS2TJ473 | 47K | 1 | |
| R3074 | | ERDS2TJ100 | 10 | 1 | |
| R3075 | | ERDS2TJ272 | 2.7K | 1 | |
| R3076 | | ERDS2TJ100 | 10 | 1 | |
| R3077 | | ERDS2TJ272 | 2.7K | 1 | |
| R3078 | | ERDS2TJ472 | 4.7K | 1 | |
| R3079,3080 | | ERDS2TJ473 | 47K | 2 | |
| R3081 | | EVM38GA00B13 | Variable 1K | 1 | |
| R3082 | | ERDS2TJ391 | 390 | 1 | |
| R3083 | | ERDS2TJ103 | 10K | 1 | |
| R3084 | | ERDS2TJ822 | 8.2K | 1 | |
| R3085 | | EVM38GA00B23 | Variable 2K | 1 | |
| R3086 | | ERDS2TJ102 | 1K | 1 | |
| R3087 | | EVM38GA00B23 | Variable 2K | 1 | |
| R3088 | | ERDS2TJ822 | 8.2K | 1 | |
| R3089 | | ERDS2TJ391 | 390 | 1 | |
| R3090 | | EVM38GA00B13 | Variable 1K | 1 | |
| R3091 | | ERDS2TJ473 | 47K | 1 | |
| R3093 | | ERDS2TJ122 | 1.2K | 1 | |
| R3094 | | ERDS2TJ473 | 47K | 1 | |
| R3095,3096 | | ERDS2TJ153 | 15K | 2 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R3097 | | ERDS2TJ102 | 1K | 1 | |
| R3098 | | ERDS2TJ472 | 4.7K | 1 | |
| R3099 | | ERDS2TJ272 | 2.7K | 1 | |
| R3100,3101 | | ERDS2TJ561 | 560 | 2 | |
| R3102 | | ERDS2TJ681 | 680 | 1 | |
| R3103 | | ERDS2TJ102 | 1K | 1 | |
| R3104 | | ERDS2TJ561 | 560 | 1 | |
| R3105 | | ERDS2TJ820 | 82 | 1 | |
| R3106 | | ERDS2TJ120 | 12 | 1 | |
| R3107 | | ERDS2TJ332 | 3.3K | 1 | |
| R3108-3110 | | ERDS2TJ102 | 1K | 3 | |
| R3111 | | ERDS2TJ331 | 330 | 1 | |
| R3112-3114 | | ERDS2TJ102 | 1K | 3 | |
| R3115 | | ERDS2TJ272 | 2.7K | 1 | |
| R3116 | | ERDS2TJ271 | 270 | 1 | |
| R3117 | | ERDS2TJ391 | 390 | 1 | |
| R3118,3119 | | ERDS2TJ102 | 1K | 2 | |
| R3120,3121 | | ERDS2TJ223 | 22K | 2 | |
| R3122 | | EVM38GA00B24 | Variable 20K | 1 | |
| R3123 | | ERDS2TJ153 | 15K | 1 | |
| R3124 | | ERDS2TJ102 | 1K | 1 | |
| R3125 | | ERDS2TJ222 | 2.2K | 1 | |
| R3126 | | ERDS2TJ102 | 1K | 1 | |
| R3127 | | ERDS2TJ332 | 3.3K | 1 | |
| R3128 | | ERDS2TJ333 | 33K | 1 | |
| R3129 | | ERDS2TJ562 | 5.6 K | 1 | |
| R3130 | | ERDS2TJ102 | 1K | 1 | |
| R3131 | | ERDS2TJ121 | 120 | 1 | |
| R3132 | | ERDS2TJ273 | 27K | 1 | |
| R3133 | | ERDS2TJ183 | 18K | 1 | |
| R3134,3135 | | ERDS2TJ271 | 270 | 2 | |
| R3136 | | ERDS2TJ681 | 680 | 1 | |
| R3137 | | ERDS2TJ222 | 2.2K | 1 | |
| R3138 | | ERDS2TJ221 | 220 | 1 | |
| R3139 | | ERDS2TJ331 | 330 | 1 | |
| R3140 | | ERDS2TJ103 | 10K | 1 | |
| R3141 | | ERDS2TJ102 | 1K | 1 | |
| R3142 | | ERDS2TJ821 | 820 | 1 | |
| R3143 | | ERDS2TJ330 | 33 | 1 | |
| R3144 | | ERDS2TJ121 | 120 | 1 | |
| R3145 | | ERDS2TJ152 | 1.5K | 1 | |
| R3146 | | ERDS2TJ223 | 22K | 1 | |
| R3147 | | EVM38GA00B24 | Variable 20K | 1 | |
| R3148 | | ERDS2TJ823 | 82K | 1 | |
| R3149 | | ERDS2TJ152 | 1.5K | 1 | |
| R3150 | | ERDS2TJ331 | 330 | 1 | |
| R3151 | | ERDS2TJ821 | 820 | 1 | |
| R3152 | | ERDS2TJ472 | 4.7K | 1 | |
| R3153 | | ERDS2TJ181 | 180 | 1 | |
| R3154 | | ERDS2TJ561 | 560 | 1 | |
| R3155 | | ERDS2TJ151 | 150 | 1 | |
| R3156,3157 | | ERDS2TJ181 | 180 | 2 | |
| R3158 | | EVTK4CA00B23 | Variable 2K | 1 | |
| R3159,3160 | | ERDS2TJ153 | 15K | 2 | |
| R3161 | | ERDS2TJ222 | 2.2K | 1 | |
| R3162 | | ERDS2TJ102 | 1K | 1 | |
| R3163 | | EVM38GA00B13 | Variable 1K | 1 | |
| R3164 | | ERDS2TJ333 | 33K | 1 | |
| R3165 | | ERDS2TJ682 | 6.8K | 1 | |
| R3166 | | ERDS2TJ471 | 470 | 1 | |
| R3167 | | ERDS2TJ271 | 270 | 1 | |
| R3168 | | ERDS2TJ561 | 560 | 1 | |
| R3169 | | ERDS2TJ271 | 270 | 1 | |
| R3170,3171 | | ERDS2TJ562 | 5.6K | 2 | |
| R3172 | | ERDS2TJ122 | 1.2K | 1 | |
| R3173 | | ERDS2TJ222 | 2.2K | 1 | |
| R3174 | | ERDS2TJ152 | 1.5K | 1 | |
| R3175 | | ERDS2TJ392 | 3.9K | 1 | |
| R3176 | | ERDS2TJ562 | 5.6K | 1 | |
| R3177 | | ERDS2TJ222 | 2.2K | 1 | |
| R3179 | | ERDS2TJ561 | 560 | 1 | |
| R3180 | | ERDS2TJ681 | 680 | 1 | |
| R3181 | | ERDS2TJ102 | 1K | 1 | |
| R3182 | | ERDS2TJ562 | 5.6K | 1 | |
| R3183 | | ERDS2TJ151 | 150 | 1 | |
| R3186 | | EVM38GA00B23 | Variable 2K | 1 | |
| R3187 | | ERDS2TJ474 | 470K | 1 | |
| R3188 | | ERDS2TJ101 | 100 | 1 | |
| R3189 | | ERDS2TJ121 | 120 | 1 | |
| R3190 | | ERDS2TJ103 | 10K | 1 | |
| R3191 | | ERDS2TJ562 | 5.6K | 1 | |
| R3192 | | ERDS2TJ121 | 120 | 1 | |
| R3193 | | ERDS2TJ471 | 470 | 1 | |
| R3194 | | ERDS2TJ121 | 120 | 1 | |
| R3195 | | ERDS2TJ103 | 10K | 1 | |
| R3196 | | ERDS2TJ562 | 5.6K | 1 | |
| R3197 | | ERDS2TJ121 | 120 | 1 | |
| R3198-3200 | | ERDS2TJ102 | 1K | 3 | |
| R3201 | | ERDS2TJ332 | 3.3K | 1 | |
| R3202 | | ERDS2TJ152 | 1.5K | 1 | |
| R3203,3204 | | ERDS2TJ223 | 22K | 2 | |
| R3211 | | ERDS2TJ103 | 10K | 1 | |
| R3212 | | ERDS2TJ122 | 1.2K | 1 | |
| R3213 | | ERDS2TJ154 | 150K | 1 | AG-6200 only |
| R3215 | | ERDS2TJ562 | 5.6K | 1 | |
| R3216 | | ERDS2TJ472 | 4.7K | 1 | |
| R3223 | | ERDS2TJ331 | 330 | 1 | AG-6200 only |
| R3224 | | ERDS2TJ682 | 6.8K | 1 | AG-6200 only |
| R3235 | | ERDS2TJ561 | 560 | 1 | AG-6200 only |
| R3238-3240 | | ERDS2TJ102 | 1K | 3 | |
| R3241 | | ERDS2TJ152 | 1.5K | 1 | AG-6200 only |
| R3242 | | ERDS2TJ182 | 1.8K | 1 | AG-6200 only |
| R3243 | | ERDS2TJ122 | 1.2K | 1 | AG-6200 only |
| R3244 | | ERDS2TJ182 | 1.8K | 1 | AG-6200 only |
| R3245 | | ERDS2TJ103 | 10K | 1 | |
| R3246,3247 | | ERDS2TJ333 | 33K | 2 | AG-6200 only |
| R3248 | | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R3249 | | ERDS2TJ471 | 470 | 1 | AG-6200 only |
| R3250 | | ERDS2TJ1R0 | 1.0 | 1 | |
| R3251 | | ERDS2TJ102 | 1K | 1 | |
| | | | | | |
| R3254 | | ERDS2TJ121 | 120 | 1 | AG-6200 only |
| R3255 | | ERDS2TJ102 | 1K | 1 | |
| R3256 | | ERDS2TJ681 | 680 | 1 | |
| R3257 | | ERDS2TJ1R0 | 1.0 | 1 | AG-6100 only |
| R3259 | | ERDS2TJ103 | 10K | 1 | |
| R3263 | | ERDS2TJ333 | 33K | 1 | |
| R3264 | | ERDS2TJ471 | 470 | 1 | |
| R3266 | | ERDS2TJ561 | 560 | 1 | AG-6200 only |
| | | | | | |
| R8301 | | ERDS2TJ821 | 820 | 1 | AG-6200 only |
| R8302 | | ERDS2TJ122 | 1.2K | 1 | AG-6200 only |
| R8303 | | ERD25TJ684 | 680K | 1 | |
| R8304 | | ERD25TJ105 | 1M | 1 | |
| R8305 | | ERDS2TJ562 | 5.6K | 1 | |
| R8306 | | ERDS2TJ122 | 1.2K | 1 | |
| R8307 | | ERDS2TJ563 | 56K | 1 | |
| R8309 | | ERDS2TJ103 | 10K | 1 | |
| R8310 | | ERDS2TJ102 | 1K | 1 | |
| R8311 | | ERDS2TJ181 | 180 | 1 | |
| | | | | | |
| | | | | | |
| | | | | | |
| R8318 | | ERD25TJ224 | 220K | 1 | |
| R8319 | | ERDS2TJ102 | 1K | 1 | |
| R8320 | | ERDS2TJ122 | 1.2K | 1 | |
| R8321 | | ERDS2TJ102 | 1K | 1 | |
| R8322 | | ERDS2TJ122 | 1.2K | 1 | |
| R8323 | | ERDS2TJ102 | 1K | 1 | AG-6200 only |
| R8325 | | ERDS2TJ102 | 1K | 1 | |

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| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R8326 | | ERDS2TJ152 | 1.5K | 1 | AG-6200 only |
| R8327 | | ERDS2TJ222 | 2.2K | 1 | AG-6200 only |
| R8328 | | ERDS2TJ273 | 27K | 1 | AG-6200 only |
| R8329 | | ERDS2TJ562 | 5.6K | 1 | |
| R8330 | | ERDS2TJ102 | 1K | 1 | |
| R8331 | | ERDS2TJ472 | 4.7K | 1 | |
| R8332 | | ERDS2TJ682 | 6.8K | 1 | |
| | | | | | |
| R8333 | | ERDS2TJ681 | 680 | 1 | |
| R8336 | | ERDS2TJ222 | 2.2K | 1 | |
| R8337 | | EVM38GA00B52 | Variable 500 | 1 | |
| R8338 | | ERDS2TJ122 | 1.2K | 1 | |
| R8339 | | ERDS2TJ472 | 4.7K | 1 | |
| R8340 | | ERDS2TJ102 | 1K | 1 | |
| R8341 | | ERDS2TJ391 | 390 | 1 | |
| R8342 | | EVM38GA00B53 | Variable 5K | 1 | |
| R8343–8346 | | ERDS2TJ391 | 390 | 4 | |
| R8347,8348 | | ERDS2TJ123 | 12K | 2 | |
| R8349 | | ERDS2TJ102 | 1K | 1 | |
| R8350 | | ERDS2TJ273 | 27K | 1 | |
| R8351 | | ERDS2TJ562 | 5.6K | 1 | |
| R8352 | | ERDS2TJ102 | 1K | 1 | |
| R8353 | | ERDS2TJ331 | 330 | 1 | |
| R8354–8356 | | ERDS2TJ102 | 1K | 3 | |
| R8357 | | ERDS2TJ273 | 27K | 1 | |
| R8358 | | ERDS2TJ103 | 10K | 1 | |
| R8359 | | ERDS2TJ102 | 1K | 1 | |
| R8360 | | ERDS2TJ273 | 27K | 1 | |
| R8361 | | ERDS2TJ103 | 10K | 1 | |
| R8362 | | ERDS2TJ222 | 2.2K | 1 | |
| R8363 | | ERDS2TJ272 | 2.7K | 1 | |
| R8364 | | ERDS2TJ560 | 56 | 1 | |
| R8365 | | ERDS2TJ102 | 1K | 1 | |
| R8366 | | ERDS2TJ103 | 10K | 1 | |
| R8367 | | ERDS2TJ333 | 33K | 1 | |
| R8368 | | ERDS2TJ392 | 3.9K | 1 | |
| R8369 | | ERDS2TJ182 | 1.8K | 1 | |
| R8370 | | ERDS2TJ102 | 1K | 1 | |
| R8371 | | ERDS2TJ274 | 270K | 1 | |
| R8372 | | ERDS2TJ222 | 2.2K | 1 | |
| R8373 | | ERD25TJ184 | 180K | 1 | |
| R8374 | | ERDS2TJ473 | 47K | 1 | |
| R8375 | | ERDS2TJ222 | 2.2K | 1 | |
| R8376 | | ERDS2TJ102 | 1K | 1 | |
| R8385 | | ERDS2TJ391 | 390 | 1 | |
| R8386 | | EVM38GA00B14 | Variable 10K | 1 | |
| R8387 | | ERDS2TJ562 | 5.6K | 1 | |
| R8388–8390 | | ERDS2TJ391 | 390 | 3 | |
| R8391,8392 | | ERDS2TJ123 | 12K | 2 | |
| R8393 | | ERDS2TJ273 | 27K | 1 | |
| R8394 | | ERDS2TJ272 | 2.7K | 1 | |
| R8395,8396 | | ERDS2TJ123 | 12K | 2 | |
| R8397 | | ERDS2TJ153 | 15K | 1 | |
| R8398 | | ERDS2TJ223 | 22K | 1 | |
| R8399 | | ERDS2TJ562 | 5.6K | 1 | |
| R8400 | | ERDS2TJ682 | 6.8K | 1 | |
| R8401 | | ERDS2TJ153 | 15K | 1 | |
| R8420 | | ERDS2TJ392 | 3.9K | 1 | |
| R8421 | | ERDS2TJ182 | 1.8K | 1 | |
| R8422 | | ERDS2TJ123 | 12K | 1 | |
| R8423 | | ERDS2TJ273 | 27K | 1 | |
| R8424 | | ERDS2TJ222 | 2.2K | 1 | |
| R8425 | | ERD25TJ334 | 330K | 1 | |
| R8434 | | ERDS2TJ391 | 390 | 1 | |
| R8435 | | ERDS2TJ333 | 33K | 1 | |
| R8436 | | ERDS2TJ681 | 680 | 1 | |
| R8437,8438 | | ERDS2TJ153 | 15K | 2 | |
| R8439 | | ERDS2TJ333 | 33K | 1 | |
| R8440 | | ERD50TJ121 | 1/2W 120 | 1 | |
| R8441 | | ERDS2TJ222 | 2.2K | 1 | |

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|---|---|---|---|---|---|
| R8442,8443 | | ERDS2TJ562 | 5.6K | 2 | |
| R8450 | | ERDS2TJ562 | 5.6K | 1 | |
| R8451 | | ERDS2TJ563 | 56K | 1 | |
| R8452 | | ERDS2TJ561 | 560 | 1 | |
| R8453 | | ERDS2TJ393 | 39K | 1 | |
| R8454 | | ERDS2TJ183 | 18K | 1 | |
| R8455 | | ERDS2TJ393 | 39K | 1 | |
| R8456 | | ERDS2TJ183 | 18K | 1 | |
| R8457 | | ERDS2TJ121 | 120 | 1 | |
| R8458 | | ERDS2TJ102 | 1K | 1 | |
| R8459 | | ERDS2TJ101 | 100 | 1 | |
| R8460 | | ERDS2TJ562 | 5.6K | 1 | |
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| | | | Capacitors | | |
| C3001 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | AG-6200 only |
| C3002 | | ECEA1CS220 | Electrolytic 16V 22 | 1 | AG-6200 only |
| C3003 | | ECEA0JN470 | Electrolytic 6.3V 47 | 1 | AG-6200 only |
| C3004 | | ECEA1AS101 | Electrolytic 10V 100 | 1 | AG-6200 only |
| C3005 | | ECEA1ES4R7 | Electrolytic 25V 4.7 | 1 | AG-6200 only |
| C3006 | | ECEA0JS221 | Electrolytic 6.3V 220 | 1 | AG-6200 only |
| C3007 | | VCY25333KW | Semiconductor 25V 0.033 | 1 | AG-6200 only |
| C3008 | | VCKD1H561JS | Ceramic 50V 560P | 1 | AG-6200 only |
| C3009 | | ECCF1H270KC | Ceramic 50V 27P | 1 | AG-6200 only |
| C3010 | | ECCF1H180KC | Ceramic 50V 18P | 1 | AG-6200 only |
| C3011 | | ECEA1AS470 | Electrolytic 10V 47 | 1 | AG-6200 only |
| C3012 | | ECQV05473JZ | Mylar 50V 0.047 | 1 | AG-6200 only |
| C3013 | | ECEA1AS221 | Electrolytic 10V 220 | 1 | AG-6200 only |
| C3015 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | AG-6200 only |
| C3016,3017 | | ECEA0JS470 | Electrolytic 6.3V 47 | 2 | AG-6200 only |
| C3018 | | ECEA1CS221 | Electrolytic 16V 220 | 1 | AG-6200 only |
| C3019 | | ECEA0JN470 | Electrolytic 6.3V 47 | 1 | AG-6200 only |
| C3020 | | ECKF1H121KB | Ceramic 50V 120P | 1 | AG-6200 only |
| C3021 | | ECEA1ES4R7 | Electrolytic 25V 4.7 | 1 | AG-6200 only |
| C3022 | | ECCF1H560KC | Ceramic 50V 56P | 1 | AG-6200 only |
| C3023 | | ECV1ZW50X64 | Trimmer 500V 50P | 1 | AG-6200 only |
| C3024 | | ECEA1CK470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C3025–3028 | | ECKF1H103ZF | Ceramic 50V 0.01 | 4 | AG-6200 only |
| C3029 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | AG-6200 only |
| C3030 | | ECCF1H820KC | Ceramic 50V 82P | 1 | AG-6200 only |
| C3031 | | ECCF1H181KC | Ceramic 50V 180P | 1 | AG-6200 only |
| C3032,3033 | | ECKF1H103ZF | Cermaic 50V 0.01 | 2 | AG-6200 only |
| C3034 | | ECKF1H391KB | Ceramic 50V 390P | 1 | AG-6200 only |
| C3035 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C3036 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | AG-6200 only |
| C3037 | | ECCF1H390KC | Ceramic 50V 39P | 1 | AG-6200 only |
| C3038,3039 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | AG-6200 only |
| C3040 | | VCY25104KX | Semiconductor 25V 0.1 | 1 | |
| C3041 | | ECKF1H103ZF | Cermaic 50V 0.01 | 1 | AG-6200 only |
| C3042 | | ECEA1CK470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C3043 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C3044 | | ECEA1CK470 | Electrolytic 16V 47 | 1 | |
| C3045 | | ECEA1HK010 | Electrolytic 50V 1 | 1 | |
| C3046 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C3047,3048 | | ECV1ZW50X64 | Trimmer 500V 50P | 2 | |
| C3049 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C3050 | | ECEA1HK010 | Electrolytic 50V 1 | 1 | |
| C3051 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C3052,3053 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C3054 | | ECCF1H470KC | Ceramic 50V 47P | 1 | |
| C3055 | | ECCF1H150KC | Ceramic 50V 15P | 1 | |
| C3056 | | ECKF1H103ZF | Cermaic 50V 0.01 | 1 | |
| C3057 | | VCY25153KX | Semiconductor 25V 0.015 | 1 | |
| C3058 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C3059 | | ECCF1H470KC | Ceramic 50V 47P | 1 | |
| C3060,3061 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C3062 | | ECEA1CS470 | Electrolytic 16V 47 | 1 | |

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C3063 |  | ECEA1HK010 | Electrolytic 50V 1 | 1 |  |
| C3064 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3065,3066 |  | ECV1ZW50X64 | Trimmer 500V 50P | 2 |  |
| C3067 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3068 |  | ECEA1HK010 | Electrolytic 50V 1 | 1 |  |
| C3069 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C3070 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3071 |  | ECCF1H470KC | Ceramic 50V 47P | 1 |  |
| C3072 |  | ECCF1H150KC | Ceramic 50V 15P | 1 |  |
| C3073 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3074 |  | VCY25153KX | Semiconductor 25V 0.015 | 1 |  |
| C3075 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3076 |  | ECCF1H470KC | Ceramic 50V 47P | 1 |  |
| C3077 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3078 |  | ECQV05473JZ | Mylar 50V 0.047 | 1 |  |
| C3079 |  | ECEA1CS221 | Electrolytic 16V 220 | 1 |  |
| C3080-3082 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 3 |  |
| C3083 |  | ECCF1H151KC | Ceramic 50V 150P | 1 |  |
| C3084 |  | ECKF1H391KB | Ceramic 50V 390P | 1 |  |
| C3085 |  | ECKD1H431JS | Ceramic 50V 430P | 1 |  |
| C3086 |  | ECKF1H391KB | Ceramic 50V 390P | 1 |  |
| C3087-3089 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 3 |  |
| C3090 |  | ECCF1H390KC | Ceramic 50V 39P | 1 |  |
| C3091-3093 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 3 |  |
| C3094 |  | ECCF1H330KC | Ceramic 50V 33P | 1 |  |
| C3095,3096 |  | ECCF1H220KC | Ceramic 50V 22P | 2 |  |
| C3097-3100 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 4 |  |
| C3101 |  | ECQV05473JZ | Mylar 50V 0.047 | 1 |  |
| C3102 |  | ECEA1CK470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C3102 |  | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6100 only |
| C3103 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3104 |  | ECCF1H560KC | Ceramic 50V 56P | 1 |  |
| C3105 |  | ECCF1H391JN | Ceramic 50V 390P | 1 | AG-6200 only |
| C3105 |  | VCKD1H391JS | Ceramic 50V 390P | 1 | AG-6100 only |
| C3106 |  | ECQM1H182JZ | Mylar 50V 1800P | 1 |  |
| C3107 |  | ECKF1H681KB | Ceramic 50V 680P | 1 |  |
| C3108 |  | ECKF1H122KB | Ceramic 50V 1200P | 1 |  |
| C3109 |  | ECEA1CN100 | Electrolytic 16V 10 | 1 |  |
| C3110 |  | ECEA1CN100 | Electrolytic 16V 10 | 1 |  |
| C3111 |  | ECCF1H101KC | Ceramic 50V 100P | 1 |  |
| C3112 |  | ECKF1H221KB | Ceramic 50V 220P | 1 |  |
| C3113 |  | ECEA0JS470 | Electrolytic 6.3V 47 | 1 |  |
| C3114 |  | ECEA1CS221 | Electrolytic 16V 220 | 1 |  |
| C3115 |  | ECQV05473JZ | Mylar 50V 0.047 | 1 |  |
| C3116 |  | ECCR1H220KC | Ceramic 50V 22P | 1 |  |
| C3117 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C3118 |  | ECCF1H680KC | Ceramic 50V 68P | 1 |  |
| C3119 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3120 |  | ECEA1CS471 | Electrolytic 16V 47 | 1 |  |
| C3121 |  | ECEA0JS470 | Electrolytic 6.3V 47 | 1 |  |
| C3124 |  | ECEA0JS470 | Electrolytic 6.3V 47 | 1 |  |
| C3125 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C3126 |  | EVKD1H271JSA | Ceramic 50V 270P | 1 |  |
| C3127 |  | ECCF1H270KC | Ceramic 50V 27P | 1 |  |
| C3128 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3129 |  | ECEA1HS010 | Electrolytic 50V 1 | 1 |  |
| C3130 |  | ECEA1CS221 | Electrolytic 16V 220 | 1 |  |
| C3131 |  | ECEA1AS470 | Electrolytic 10V 47 | 1 |  |
| C3132 |  | ECQM1H183KZ | Mylar 50V 0.018 | 1 | AG-6200 only |
| C3132 |  | VCY25183KW | Semiconductor 25V 0.018 | 1 | AG-6100 only |
| C3133 |  | ECCF1H101KC | Ceramic 50V 100P | 1 |  |
| C3134,3135 |  | ECEA0JS470 | Electrolytic 6.3V 47 | 2 |  |
| C3136 |  | ECEA0JS471 | Electrolytic 6.3V 470 | 1 |  |
| C3137 |  | ECEA1AS471 | Electrolytic 10V 470 | 1 |  |
| C3138 |  | ECEA0JS470 | Electrolytic 6.3V 47 | 1 |  |
| C3139 |  | ECEA0JS471 | Electrolytic 6.3V 470 | 1 |  |
| C3140 |  | ECEA1AS471 | Electrolytic 10V 470 | 1 |  |
| C3141 |  | ECCF1H101KC | Ceramic 50V 100P | 1 |  |
| C3142 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C3143 |  | ECEA1CS221 | Electrolytic 16V 220 | 1 |  |

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C3144 |  | ECQV05473JZ | Mylar 50V 0.047 | 1 |  |
| C3152 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C3158 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | AG-6200 only |
| C3159 |  | ECEA1CK470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C3162 |  | ECEA1ESS331 | Electrolytic 25V 330 | 1 | AG-6200 only |
| C3163 |  | ECEA1CK470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C3164 |  | ECKF1H221KB | Ceramic 50V 220P | 1 |  |
| C3165 |  | ECQV05104JZ | Mylar 50V 0.1 | 1 |  |
|  |  |  |  |  |  |
| C3170 |  | ECEA1AS470 | Electrolytic 10V 47 | 1 |  |
| C3171,3172 |  | ECQV05104JZ | Mylar 50V 0.1 | 2 |  |
| C3173 |  | ECKF1H121KB | Ceramic 50V 120P | 1 | AG-6200 only |
| C3175 |  | ECCF1H151KC | Ceramic 50V 150P | 1 | AG-6200 only |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| C8302 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | AG-6200 only |
| C8303 |  | ECEA1HS010 | Electrolytic 50V 1 | 1 |  |
| C8304 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C8305-8308 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 4 |  |
| C8309 |  | ECKF1H121KB | Ceramic 50V 120P | 1 |  |
| C8310 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
|  |  |  |  |  |  |
| C8313,8314 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 2 |  |
| C8315 |  | ECEA1CK470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C8315 |  | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6100 only |
| C8316,8317 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 2 |  |
| C8318 |  | ECKF1H102KB | Ceramic 50V 1000P | 1 | AG-6200 only |
| C8319 |  | ECEA1AS470 | Electrolytic 10V 47 | 1 |  |
| C8320 |  | ECEA1CK470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C8320 |  | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6100 only |
| C8321 |  | ECEA1HS010 | Electrolytic 50V 1 | 1 |  |
| C8322 |  | ECQV05104JZ | Mylar 50V 0.1 | 1 |  |
| C8323 |  | ECKF1H102KB | Ceramic 50V 1000P | 1 |  |
| C8324 |  | ECQV05104JZ | Mylar 50V 0.1 | 1 |  |
| C8325 |  | VCKD1H821JSA | Ceramic 50V 820P | 1 |  |
| C8326 |  | ECKF1H821KB | Ceramic 50V 820P | 1 |  |
| C8327 |  | ECKF1H561KB | Ceramic 50V 560P | 1 |  |
| C8328 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C8329 |  | VCY25183KW | Semiconductor 25V 0.018 | 1 |  |
| C8330 |  | ECCF1H181KC | Ceramic 50V 180P | 1 |  |
| C8331 |  | ECKF1H121KB | Ceramic 50V 120P | 1 |  |
| C8332 |  | ECKF1H821KB | Ceramic 50V 820P | 1 |  |
| C8333 |  | ECKF1H221KB | Ceramic 50V 220P | 1 |  |
| C8334,8335 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 2 |  |
| C8336 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C8337 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C8338 |  | ECCF1H820KC | Ceramic 50V 82P | 1 |  |
| C8339 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C8340 |  | ECKF1H121KB | Ceramic 50V 120P | 1 |  |
| C8341 |  | ECCF1H101KC | Ceramic 50V 100P | 1 |  |
| C8342 |  | ECCF1H100FC | Ceramic 50V 10P | 1 |  |
| C8343 |  | ECV1ZW30X64 | Trimmer 500V 30P | 1 |  |
| C8344 |  | ECQM1H333KZ | Mylar 50V 0.033 | 1 |  |
| C8345 |  | ECEA1CS100 | Electrolytic 16V 10 | 1 |  |
| C8346 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C8347 |  | ECCF1H030DC | Ceramic 50V 3P | 1 |  |
| C8348 |  | ECV1ZW20X64 | Trimmer 500V 20P | 1 |  |
| C8349 |  | ECCF1H080DC | Ceramic 50V 8P | 1 |  |
| C8350 |  | ECEA1CS470 | Electrolytic 16V 47 | 1 |  |
| C8351,8352 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 2 |  |
| C8353 |  | ECCF1H101KC | Ceramic 50V 100P | 1 |  |
| C8354 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C8355 |  | ECCF1H270KC | Ceramic 50V 27P | 1 |  |
| C8355 |  | ECCF1H150KC | Ceramic 50V 15P | 1 |  |
| C8356 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |
| C8357 |  | ECEA1HS2R2 | Electrolytic 50V 2.2 | 1 |  |
| C8358 |  | ECKF1H471KB | Ceramic 50V 470P | 1 |  |
| C8359 |  | ECKF1H103ZF | Ceramic 50V 0.01 | 1 |  |

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| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| C8367,8368 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C8369 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C8370 | | ECQV05104JZ | Mylar 50V 0.1 | 1 | |
| C8383 | | ECQM1H103KZ | Mylar 50V 0.01 | 1 | |
| C8384 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C8385 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C8386 | | ECCF1H040DC | Ceramic 50V 4P | 1 | |
| C8387 | | ECV1ZW30X64 | Trimmer 500V 30P | 1 | |
| C8388 | | ECCF1H060DC | Ceramic 50V 6P | 1 | |
| C8389 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C8390,8391 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C8393 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C8394 | | ECCF1H150KC | Ceramic 50V 15P | 1 | |
| C8395,8396 | | ECKF1H103ZF | Ceramic 50V 0.01 | 2 | |
| C8397 | | ECEA1HS2R2 | Electrolytic 50V 2.2 | 1 | |
| C8398 | | ECCF1H101KC | Ceramic 50V 100P | 1 | |
| C8399 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C8400 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C8401 | | ECKF1H391KB | Ceramic 50V 390P | 1 | |
| C8402 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | AG-6200 only |
| C8403 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C8407 | | ECKF1H103ZF | Ceramic 50V 0.01 | 1 | |
| C8408 | | ECEA1CS330 | Electrolytic 16V 33 | 1 | |
| C8409 | | ECQV05104JZ | Mylar 50V 0.1 | 1 | |
| C8412 | | ECQV05104JZ | Mylar 50V 0.1 | 1 | |
| | | | Coils | | |
| L3001 | | VLQEL06F330K | Choke 33μH | 1 | AG-6200 only |
| L3002 | | VLQEL06F680K | Choke 68μH | 1 | AG-6200 only |
| L3004,3005 | | VLQEL06F221K | Peaking 220μH | 2 | AG-6200 only |
| L3006 | | VLQEL06F820K | Peaking 82μH | 1 | AG-6200 only |
| L3007 | | VLQEL06F151K | Peaking 150μH | 1 | AG-6200 only |
| L3008 | | VLQEL06F270K | Choke 27μH | 1 | AG-6200 only |
| L3009 | | VLQEL06F330K | Choke 33μH | 1 | AG-6200 only |
| L3010 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L3011 | | VLQEL06F2R2K | Choke 2.2μH | 1 | |
| L3012 | | VLQEL06F220K | Peaking 22μH | 1 | |
| L3013 | | VLQEL06F471K | Peaking 470μH | 1 | |
| L3014 | | VLQEL06F220K | Choke 22μH | 1 | |
| L3015 | | VLQEL06F2R2K | Choke 2.2μH | 1 | |
| L3016 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L3017 | | VLQEL06F2R2K | Choke 2.2μH | 1 | |
| L3018 | | VLQEL06F220K | Peaking 22μH | 1 | |
| L3019 | | VLQEL06F471K | Peaking 470μH | 1 | |
| L3020 | | VLQEL06F220K | Peaking 22μH | 1 | |
| L3021 | | VLQEL06F2R2K | Choke 2.2μH | 1 | |
| L3022,3023 | | VLQEL06F221K | Peaking 220μH | 2 | |
| L3024 | | VLQEL06F180K | Choke 18μH | 1 | |
| L3025 | | VLQEL06F2R2K | Choke 2.2μH | 1 | |
| L3026 | | VLQEL06F1R0K | Peaking 1.0μH | 1 | |
| L3027 | | VLQEL06F151K | Peaking 150μH | 1 | |
| L3028 | | VLQEL06F471K | Peaking 470μH | 1 | |
| L3029,3030 | | VLQEL06F100K | Choke 10μH | 2 | |
| L3031 | | VLQEL06F180K | Choke 18μH | 1 | |
| L3032 | | VLQEL06F3R3K | Choke 3.3μH | 1 | |
| L3033,3034 | | VLQEL06F220K | Choke 22μH | 2 | |
| L3035,3036 | | VLQEL06F221K | Peaking 220μH | 2 | |
| L3037 | | VLQEL06F151K | Peaking 150μH | 1 | |
| L3039 | | VLQEL06F471K | Peaking 470μH | 1 | |
| L3040,3041 | | VLQEL06F100K | Choke 10μH | 2 | |
| L3043 | | VLQEL06F221K | Peaking 220μH | 1 | AG-6200 only |
| L3045 | | VLQEL06F221K | Peaking 220μH | 1 | AG-6200 only |
| L3046 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L3047 | | VLQEL06F121K | Peaking 120μH | 1 | |
| L3048 | | VLQEL06F150K | Choke 15μH | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| L8301 | | VLQEL06F121K | Peaking 120μH | 1 | |
| L8303 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L8305 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L8306 | | VLQ02F682K | Choke 6.8mH | 1 | |
| L8307 | | VLQEL06F101K | Peaking 100μH | 1 | |
| L8308,8309 | | VLQEL06F150K | Peaking 15μH | 2 | |
| L8310,8311 | | VLQEL06F221K | Peaking 220μH | 2 | |
| L8312 | | VLQEL06F330K | Choke 33μH | 1 | |
| L8313 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L8314 | | VLQEL06F560K | Choke 56μH | 1 | |
| L8315 | | VLQEL06F470K | Choke 47μH | 1 | |
| L8317 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L8318,8319 | | VLQEL06F6R8K | Peaking 6.8μH | 2 | |
| L8322 | | VLQEL06F560K | Peaking 56μH | 1 | |
| L8323 | | VLQEL06F221K | Peaking 220μH | 1 | |
| L8324 | | VLQEL06F470K | Choke 47μH | 1 | |
| L8326 | | VLQEL06F221K | Peaking 220μH | 1 | |
| | | | Filters | | |
| FL3001 | | VLF0056 | | 1 | AG-6200 only |
| FL3002 | | VLF0287 | | 1 | AG-6200 only |
| FL3003 | | VLF0063 | | 1 | |
| FL3004 | | VLF0208 | | 1 | |
| FL3005 | | VLF0115 | | 1 | |
| FL8301 | | VLF0113 | | 1 | AG-6200 only |
| FL8302 | | VLF0085 | | 1 | |
| FL8303 | | VLF0094 | | 1 | |
| FL8304 | | VLF0303 | | 1 | AG-6200 only |
| FL8305 | | VLF0095 | | 1 | |
| | | | Delay Lines | | |
| DL3001 | | EFDYN645A15A | | 1 | |
| DL8302 | | VLD0014 | | 1 | |
| DL8303 | | EFDEN645A12G | | 1 | |
| | | | Crystals | | |
| X8301 | | VSX0066 | | 1 | |
| X8302 | | VSX0069 | | 1 | |
| X8305 | | VSX0068 | | 1 | |
| | | | Connectors | | |
| P3001 | | VJP1231 | 4P | 1 | |
| P3003 | | VJP1232 | 5P | 1 | |
| P3004 | | VJP1235 | 8P | 1 | |
| P3005 | | VJP1230 | 3P | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| P3006 | | VJP1230 | 3P | 1 | AG-6200 only |
| P3007 | | VJP1231 | 4P | 1 | |
| P3008 | | VJP1147 | 12P | 1 | |
| P8302 | | VJP1235 | 8P | 1 | |
| P8303 | | VJP1232 | 5P | 1 | |
| | | | Test Terminals | | |
| TP3001-3005 | | VJH0096 | | 5 | AG-6200 only |
| TP3006-3008 | | VJH0096 | | 3 | |
| TP3016-3021 | | VJH0096 | | 6 | |
| TP3022 | | VJH0096 | | 1 | |
| TP8301-8311 | | VJH0096 | | 11 | |
| TP8312-8313 | | VJH23 | | 2 | |
| TP8316 | | VJH0096 | | 1 | |
| | | | Miscellaneous | | |
| | | VSC0969 | Shield Case (Top) | 1 | |
| | | VSC0970 | Shiled Case (Bottom) | 1 | |
| | | VEP06189D/E | Front CPU C.B.A. | | |
| | | | Integrated Circuit | | |
| IC6201 | | µPD1511AC022 | | 1 | ® |
| | | | Transistor | | |
| Q6201-6204 | | 2SB643 | | 4 | (Q,R) |
| Q6205 | | 2SD636 | | 1 | (Q,R) |
| Q6206 | | 2SC641 | | 1 | |
| Q6207-6211 | | 2SD636 | | 5 | (Q,R) |
| Q6214 | | 2SD637 | | 1 | (Q,R) |
| Q6215,6216 | | 2SD636 | | 2 | (Q,R) |
| | | | Diodes | | |
| D6201 | | MA1051 | | 1 | |
| D6202 | | MA162 | | 1 | |
| D6203 | | MA1300 | Zener | 1 | ® |
| D6204 | | MA165 | | 1 | |
| | | | Resistors | | |
| R6201-6204 | | ERDS2TJ103 | 10K | 4 | |
| R6205-6208 | | ERDS2TJ272 | 2.7K | 4 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| R6209 | | ERDS2TJ104 | 100K | 1 | |
| R6210 | | ERDS2TJ103 | 10K | 1 | |
| R6211-6214 | | ERDS2TJ472 | 4.7K | 4 | |
| R6215-6218 | | ERDS2TJ273 | 27K | 4 | |
| R6219 | | ERDS2TJ272 | 2.7K | 1 | |
| R6220,6221 | | ERDS2TJ104 | 100K | 2 | |
| R6222 | | ERDS2TJ682 | 6.8K | 1 | |
| R6223 | | ERDS2TJ330 | 33 | 1 | |
| R6236 | | ERDS2TJ103 | 10K | 1 | |
| R6237,6238 | | ERDS2TJ104 | 100K | 2 | |
| R6239 | | ERDS2TJ103 | 10K | 1 | |
| | | | Capacitors | | |
| C6201,6202 | | ECCF1H680J | Ceramic 50V 68P | 2 | |
| C6204 | | ECEA0JS470 | Electrolytic 6.3V 47 | 1 | |
| C6205 | | ECEA1CK100 | Electrolytic 16V 10 | 1 | |
| C6206,6207 | | ECEA1CS470 | Electrolytic 16V 47 | 2 | |
| C6208 | | ECQM1H332KZ | Mylar 50V 3300P | 1 | |
| C6209 | | ECQM1H102KZ | Mylar 50V 1000P | 1 | |
| C6210 | | ECEA1HS4R7 | Electrolytic 50V 4.7 | 1 | |
| | | | Coils | | |
| L6201 | | VLQ80F470K | Choke 47µH | 1 | |
| L6202 | | VLQ80F102K | Choke 1mH | 1 | |
| | | | Resistor Arrays | | |
| RA6201 | | EXBP84393K | 39Kx4 | 1 | |
| RA6202 | | EXBP84103K | 10Kx4 | 1 | |
| RA6203 | | EXBP85103K | 10Kx5 | 1 | |
| | | | Switches | | |
| SW6201 | | ESD14161 | | 1 | AG-6200 only ® |
| SW6203 | | ESD14161 | | 1 | ® |
| SW6205-6207 | | ESD14161 | | 3 | ® |
| | | | Transformer | | |
| T6201 | | VLT0203A | | 1 | ® |
| | | | Crystal | | |
| X6201 | | VSX0082 | | 1 | ® |
| | | | Connectors | | |

# Counter C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| P6201,6202 | | VJP1235 | 8P | 2 | |
| P6204 | | VJP1250 | 10P | 1 | |
| P6205 | | VJP1248 | 8P | 1 | |
| P6206,6210 | | VJP1245 | 5P | 2 | |
| P6211 | | VJP1246 | 6P | 1 | |
| P6212 | | VJP1252 | 12P | 1 | |
| P6213 | | VJP1248 | 8P | 1 | |
| | | VEP00B25A1 | Counter C.B.A. | | |
| | | | Integrated Circuits | | |
| IC6301 | | AN6873N | | 1 | ® |
| IC6302 | | μPD1512AC049 | | 1 | ® |
| IC6303 | | AN6873N | | 1 | ® |
| | | | Transistors | | |
| Q6301 | | 2SC641 | | 1 | ® |
| Q6302,6303 | | 2SD636 | | 2 | (Q,R) |
| | | | Diodes | | |
| D6304 | | HZ4BLL | Zener | 1 | ® |
| D6305 | | MA165 | | 1 | |
| | | | Resistors | | |
| R6301,6302 | | ERDS2TJ103 | 10K | 2 | |
| R6303 | | ERDS2TJ104 | 100K | 1 | |
| R6307-6309 | | ERDS2TJ103 | 10K | 3 | |
| R6311 | | ERDS2TJ104 | 100K | 1 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| SR6301 | | EVQWWBF25002 | Search Dial VR | 1 | |
| | | | Capacitors | | |
| C6301,6302 | | ECCF1H680J | Ceramic 50V 68P | 2 | |
| C6303,6304 | | ECEA0JS470 | Electrolytic 6.3V 47 | 2 | |
| C6305 | | ECEA1CS100 | Electrolytic 16V 10 | 1 | |
| C6306 | | ECEA1HS010 | Electrolytic 50V 1 | 1 | |
| | | | Coil | | |
| L6301 | | VLQ80F470K | 47μH | 1 | |
| | | | Resistor Arrays | | |
| RA6301 | | EXBP85103K | 10Kx5 | 1 | |
| RA6302 | | EXBP84103K | 10Kx4 | 1 | |
| | | | Switch | | |
| S6301-6305 | | EVQQJ104K | | 5 | |
| | | | Crystal | | |
| X6301 | | VSX0082 | | 1 | ® |
| | | | Connectors | | |
| P6301 | | VJP1235 | 8P | 1 | |
| P6302 | | VJP1235 | 8P | 1 | |
| P6304,6305 | | VJP1232 | 5P | 2 | |
| | | | Miscellaneous | | |
| FL6301 | | VSL0023 | Display Tube | 1 | |
| | | VGQ0301 | Display Tube Holder | 2 | |
| | | VMP0314 | C.B.A. Angle | 1 | |
| | | VMX0469 | Display Tube Spacer | 2 | |
| | | XTV3+8F | Screw | 6 | |
| | | VMA6295 | Search VR Angle | 1 | |

# 34P Control C.B.A., Left Control Panel C.B.A.

| Ref. No. | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|
|  | VEP06219A | 34P Control C.B.A. |  |  |
|  |  | Integrated Circuits |  |  |
| IC6601 | μPD1511AC021 |  | 1 | ® |
| IC6602 | HD7406P |  | 1 | ® |
|  |  | Transistors |  |  |
| Q6601 | 2SC641 |  | 1 | ® |
| Q6602-6610 | 2SD636 |  | 9 | (Q,R) |
|  |  | Diode |  |  |
| D6601,6602 | MA165 |  | 2 |  |
|  |  | Resistors |  |  |
| R6601,6602 | ERDS2TJ103 | 10K | 2 |  |
| R6603 | ERDS2TJ104 | 100K | 1 |  |
| R6604-6606 | ERDS2TJ472 | 4.7K | 3 |  |
| R6607-6617 | ERDS2TJ103 | 10K | 11 |  |
| R6618 | ERDS2TJ563 | 56K | 1 |  |
| R6619 | ERDS2TJ103 | 10K | 1 |  |
| R6620 | ERDS2TJ104 | 100K | 1 |  |
| R6621 | ERDS2TJ102 | 1K | 1 |  |
| R6622 | ERDS2TJ562 | 5.6K | 1 |  |
| R6623-6625 | ERDS2TJ103 | 10K | 3 |  |
| R6626 | ERQ12AJ3R9 | Metal Fuse 1/2W 3.9 | 1 |  |
| R6627 | ERDS2TJ563 | 56K | 1 |  |
| R6628 | ERDS2TJ153 | 15K | 1 |  |
| R6629,6630 | ERDS2TJ103 | 10K | 2 |  |
| R6631-6633 | ERDS2TJ104 | 100K | 3 |  |
| R6634 | ERDS2TJ683 | 68K | 1 |  |
| R6635 | ERDS2TJ473 | 47K | 1 |  |
| R6636 | ERDS2TJ102 | 1K | 1 |  |
| R6637 | ERDS2TJ103 | 10K | 1 |  |
|  |  | Capacitors |  |  |
| C6601 | ECEA1CS470 | Electrolytic 16V 47 | 1 |  |
| C6602 | ECEA1CK470 | Electrolytic 16V 47 | 1 |  |
| C6603,6604 | ECCF1H680J | Ceramic 50V 68P | 2 |  |
| C6605 | ECEA1CK100 | Electrolytic 16V 10 | 1 |  |
| C6606 | ECEA0JK101 | Electrolytic 6.3V 100 | 1 |  |
| C6607 | ECEA1HK2R2 | Electrolytic 50V 2.2 | 1 |  |
| C6608-6612 | ECKF1H102ZF | Ceramic 50V 1000P | 5 |  |
|  |  | Coil |  |  |
| L6601 | VLQ80F470K | Choke 47μH | 1 |  |
|  |  | Resistor Arrays |  |  |
| RA6601 | EXBP88103K | 10Kx8 | 1 |  |

| Ref. No. | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|
| RA6602 | EXBP86103K | 10Kx6 | 1 |  |
|  |  | Capacitor Arrays |  |  |
| CA6601,6602 | EXFP4102ZW | 0.01x4 | 2 |  |
| CA6603 | EXFP6102ZW | 0.01x6 | 1 |  |
|  |  | Crystal |  |  |
| X6601 | VSX0082 |  | 1 | ® |
|  |  | Connectors |  |  |
| P6601 | VJP1248 | 8P | 1 |  |
| P6602 | VJP1252 | 12P | 1 |  |
| P6603 | VJP1327 | 34P | 1 |  |
|  |  | Miscellaneous |  |  |
|  | QJT0015 | Lag | 1 |  |
|  | VMX0674 | 34P Spacer | 1 |  |
|  | VEP00977C/B | Left Control Panel C.B.A. |  |  |
|  |  | Resistors |  |  |
| R6543,6544 | ERDS2TJ393 | 39K | 2 |  |
|  |  | Connectors |  |  |
| P6541 | VJP1252 | 12P | 1 |  |
| P6542 | VJP1245 | 5P | 1 |  |
| P6543-1 | VJP1232 | 5P | 1 |  |
| P6543-2 | VJP1233 | 6P | 1 |  |
| P6544 | VJP1243 | 3P | 1 |  |
| P6545 | VJP1245 | 5P | 1 |  |
| P6546 | VJP1108 | 5P | 1 |  |
| P6547 | VJP1245 | 5P | 1 |  |
| P6548-1 | VJP1231 | 4P | 1 |  |
| P6548-2 | VJP1232 | 5P | 1 |  |
|  |  | Lamps |  |  |
| PL6541,6542 | VLL0019 |  | 2 | ® |
|  |  | Switches |  |  |
| S6541 | ESB641 |  | 1 | AG-6200 (,EN) only ⚠® |

# Left Control Panel C.B.A., Front Jack C.B.A.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| S6543 | | ESB641 | | 1 | ⚠ ® |
| S6544-6546 | | VSS0072 | | 3 | ® |
| | | VEP00A39B/A | Left Control Panel C.B.A. | | |
| | | | Diode | | |
| D6541 | | LN81RCPHL | LED | 1 | ® |
| | | | Resistors | | |
| R6541 | | ERDS2TJ393 | 39K | 1 | |
| R6542 | | ERDS2TJ681 | 610 | 1 | |
| | | | Connectors | | |
| P6541 | | VJP1242 | 2P | 1 | |
| P6542 | | VJP1245 | 5P | 1 | |
| P6543 | | VJP1233 | 6P | 1 | |
| P6547 | | VJP1245 | 5P | 1 | |
| | | | Switches | | |
| S6541 | | ESB641 | | 1 | AG-6100 (A,EN) only⚠® |
| S6542 | | ESB641 | | 1 | ⚠ ® |
| S6543 | | VSS073 | | 1 | ® |
| S6544 | | VSS086 | | 1 | ® |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VMX0473 | LED Holder | 1 | |
| | | VEP00978A/B | FRONT JACK C.B.A. | | |
| | | | Integrated Circuit | | |
| IC6561 | | TA7325P | | 1 | AG-6200 only ® |
| | | | Transistor | | |
| Q6561 | | 2SD636 | | 1 | (Q,R) AG-6200 only |
| | | | Resistors | | |
| R6564,6565 | | ERDS2TJ473 | 47K | 2 | AG-6200 only |
| R6566 | | ERDS2TJ472 | 4.7K | 1 | AG-6200 only |
| R6567 | | ERDS2TJ473 | 47K | 1 | AG-6200 only |
| R6568 | | ERDS2TJ474 | 470K | 1 | AG-6200 only |
| R6569 | | ERDS2TJ221 | 220 | 1 | AG-6200 only |
| R6570 | | ERDS2TJ682 | 6.8K | 1 | AG-6200 only |
| R6571 | | ERDS2TJ474 | 470K | 1 | AG-6200 only |
| R6572 | | ERDS2TJ682 | 6.8K | 1 | AG-6200 only |
| R6573 | | ERDS2TJ472 | 4.7K | 1 | AG-6200 only |
| R6574 | | ERDS2TJ473 | 47K | 1 | AG-6200 only |
| R6575 | | ERDS2TJ221 | 220 | 1 | AG-6200 only |
| R6576 | | ERDS2TJ182 | 1.8K | 1 | AG-6200 only |
| R6577,6578 | | ERDS2TJ121 | 120 | 2 | |

# Rear Jack C.B.A., Mode SW C.B.A.

| Ref. No. | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|
| | | Capacitors | | |
| C6561 | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C6562 | ECKF1H102ZF | Ceramic 50V 1000P | 1 | AG-6200 only |
| C6563 | ECEA1CS100 | Electrolytic 16V 10 | 1 | AG-6200 only |
| C6564 | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C6565,6566 | ECEA1CS100 | Electrolytic 16V 10 | 2 | AG-6200 only |
| C6567 | ECKF1H102ZF | Ceramic 50V 1000P | 1 | AG-6200 only |
| C6568,6569 | ECEA1CS100 | Electrolytic 16V 10 | 2 | AG-6200 only |
| C6570 | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| C6571 | ECEA1CS101 | Electrolytic 16V 100 | 1 | AG-6200 only |
| C6572 | ECEA1CS470 | Electrolytic 16V 47 | 1 | AG-6200 only |
| | | Connecters | | |
| P6561 | VJP1243 | 3P | 1 | |
| P6562 | VJP1244 | 4P | 1 | |
| P6563 | VJP1244 | 4P | 1 | |
| P6564 | VJP1245 | 5P | 1 | |
| P6565 | VJP1250 | 10P | 1 | AG-6200 only |
| | VEP00981D/E | Rear Jack C.B.A. | | |
| | | Transistors | | |
| Q6661,6662 | 2SD636 | | 2 | (Q,R) |
| Q6663 | 2SB641 | | 1 | (Q,R) |
| Q6664 | 2SD636 | | 1 | (Q,R) |
| | | Diodes | | |
| D6661-6664 | MA165 | | 4 | |
| D6665,6666 | MA165 | | 2 | AG-6200 only |
| D6667 | MA165 | | 1 | |
| D6668 | MA165 | | 1 | AG-6200 only |
| D6669-6672 | MA165 | | 4 | |
| D6673 | MA165 | | 1 | AG-6200 only |
| D6674 | MA165 | | 1 | |
| D6675 | MA165 | | 1 | AG-6200 only |
| | | Resistors | | |
| R6661 | ERDS2TJ103 | 10K | 1 | |
| R6662 | ERDS2TJ472 | 4.7K | 1 | |
| R6663 | ERDS2TJ103 | 10K | 1 | |
| R6664 | ERDS2TJ103 | 10K | 1 | AG-6200 only |
| R6665 | ERDS2TJ103 | 10K | 1 | |
| R6666 | ERDS2TJ750 | 75 | 1 | |
| R6667 | ERDS2TJ823 | 82K | 1 | |
| R6668 | ERDS2TJ103 | 10K | 1 | |
| R6669 | ERDS2TJ273 | 27K | 1 | |
| R6670,6671 | ERDS2TJ563 | 56K | 2 | |
| R6672,6673 | ERDS2TJ561 | 560 | 2 | |
| R6674 | ERDS2TJ750 | 75 | 1 | |
| R6675 | ERDS2TJ750 | 75 | 1 | AG-6200 only |
| R6677 | ERG2ANJ101 | Metal Oxide 2W 100 | 1 | |

| Ref. No. | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|
| R6678 | ERDS2TJ103 | 10K | 1 | |
| R6679 | ERDS2TJ750 | 75 | 1 | |
| R6680 | ERDS2TJ563 | 56K | 1 | |
| R6681 | ERDS2TJ823 | 82K | 1 | |
| R6682 | ERDS2TJ103 | 10K | 1 | |
| R6683 | ERDS2TJ104 | 100K | 1 | |
| R6684 | ERDS2TJ822 | 8.2K | 1 | |
| R6685 | ERDS2TJ103 | 10K | 1 | |
| | | Connectors | | |
| P6661 | VJP1252 | 12P | 1 | |
| P6662 | VJP1244 | 4P | 1 | |
| P6663 | VJP1252 | 12P | 1 | AG-6200 only |
| P6663 | VJP1242 | 2P | 1 | AG-6100 only |
| P6664 | VJP1243 | 3P | 1 | |
| P6665 | VJP1245 | 5P | 1 | |
| P6666 | VJP1246 | 6P | 1 | |
| P6667 | VJP1245 | 5P | 1 | |
| P6668 | VJP1248 | 8P | 1 | |
| | | Switches | | |
| SW6662 | VES0244 | | 1 | AG-6200 only ® |
| SW6663 | VES0244 | | 1 | ® |
| SW6664 | VES0244 | | 1 | AG-6200 only ® |
| SW6665 | VES0244 | | 1 | ® |
| | VJB00B59 | Mode Switch C.B. | | |
| | | Connector | | |
| P6901 | VJP1245 | 5P | 1 | |
| | | Switches | | |
| SW6901 | ESD14193 | | 1 | ® |
| SW6902 | ESD14130 | | 1 | ® |

# Small Circuit Boards

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VJB00A41 | Mechanism Connection C.B. | | |
| | | | Connectors | | |
| P6704 | | VJP1250 | 10P | 1 | |
| P6705 | | VJP1242 | 2P | 1 | |
| P6706 | | VJP1148 | 2P | 1 | |
| P6707 | | VJP1242 | 2P | 1 | |
| P6708 | | VJP1244 | 4P | 1 | |
| | | | Miscellaneous | | |
| | | VMA6059 | C.B. Angle | 1 | |
| | | VJH0196 | Test Terminal | 3 | |
| | | XTV3+6F | Screw | 3 | |
| | | VJB00A05 | Lamp C.B. | | |
| PL6751,6752 | | VLL0019 | Lamp | 2 | ® |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VJB00A06 | Front Loading Connection C.B. | | |
| | | | Connectors | | |
| P6751 | | VJP1245 | 5P | 1 | |
| P6752,6753 | | VJP1242 | 2P | 2 | |
| | | XTV3+6F | Screw | 1 | |
| | | VJB00A19 | Power & Reel Drive Tr C.B. | | |
| | | | Transistors | | |
| Q6401 | | 2SD1268 | Power Tr | 1 | ⚠ ® |
| Q6402 | | 2SD1265 | Reel Drive Tr | 1 | ⚠ ® |
| | | | Miscellaneous | | |
| | | VSC0984 | Heat Sink | 1 | |
| | | N018 | Insulation Sheet | 2 | |
| | | N024B | Insulation Tube | 2 | |
| | | XTV3+8F | Screw | 4 | |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VJB00A40 | Front Connection C.B. | | |
| | | | | | |
| | | | Connectors | | |
| P6801,6802 | | VJP1229 | 2P | 2 | |
| P6803 | | VJP1233 | 6P | 1 | |
| P6811,6812 | | VJP1229 | 2P | 2 | |
| P6813 | | VJP1233 | 6P | 1 | |
| | | | | | |
| | | VJB00636 | Supply Photo Tr C.B. | | |
| | | | | | |
| Q1504S | | PN150NV | Photo TR | 1 | |
| C6701S | | ECKF1H102KB | Ceramic 50V 1000P | 1 | Capacitor |

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| | | VJB00636 | Takeup Photo Tr C.B. | | |
| | | | | | |
| Q1504T | | PN150NV | Photo TR | 1 | |
| C6701T | | ECKF1H102KB | Ceramic 50V 1000P | 1 | Capacitor |
| | | | | | |
| | | VJB00931 | Reel Sensor C.B. | | |
| | | | | | |
| IC6701,6702 | | DN6838A | Hall IC | 2 | ® |

# Key Board Unit

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
|  |  | VJB00639 | Sensor LED C.B. |  |  |
| D6701,6702 |  | LN58 | LED | 2 | ® |
|  |  | VMD0145 | LED Holder | 1 |  |
|  |  | VMA4785 | LED Holder Angle | 1 |  |
|  |  | XSS26+4 | Screw | 1 |  |
|  |  | VJB00A72 | A/C Head C.B. |  |  |
|  |  | ERDS2TJ100 | Resistor 10Ω | 1 |  |
|  |  | VJP1244 | Connector | 1 |  |
|  |  | ESB9462 | Key Board Unit |  |  |
|  |  |  | Diodes |  |  |
| D1-8 |  | LN81RCPHL | LED | 8 | ® |
| D11 |  | LN81RCPHL | LED | 1 | ® |
| D12 |  | LN49YCPP | LED | 1 | ® |
| D13,14 |  | LN31GCPHLMU | LED | 2 | ® |
| DK1-6 |  | MA154WA |  | 6 |  |
|  |  |  | Resistors |  |  |
| R1-8 |  | ERD25TJ221 | 220 | 8 |  |
| R11-14 |  | ERD25TJ221 | 220 | 4 |  |
|  |  |  | Switches |  |  |
| SW1-8 |  | EVQQS107K |  | 8 | ® |
| SW10,11 |  | EVQQS107K |  | 2 | ® |
|  |  |  | Miscellaneous |  |  |
|  |  | KL02 | LED Spacer | 12 |  |

| Ref. No. |  | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
|  |  | ESB9466 | Key Board Unit |  |  |
|  |  |  | Diodes |  |  |
| D1-3 |  | LN81RCPHL | LED | 3 | ® |
| D6-8 |  | LN81RCPHL | LED | 3 | ® |
| D11 |  | LN81RCPHL | LED | 1 | ® |
| D12 |  | LN49YCPP | LED | 1 | ® |
| D14 |  | LN31GCPHL | LED | 1 | ® |
| DK1-3 |  | MA154WA |  | 3 |  |
| DK5,6 |  | MA154WA |  | 2 |  |
|  |  |  | Resistors |  |  |
| R1-3 |  | ERD25TJ221 | 220 | 3 |  |
| R6-8 |  | ERD25TJ221 | 220 | 3 |  |
| R11,12 |  | ERD25TJ221 | 220 | 2 |  |
| R14 |  | ERD25TJ221 | 220 | 1 |  |
|  |  |  | Switches |  |  |
| SW1-3 |  | EVQQS107K |  | 3 |  |
| SW6-8 |  | EVQQS107K |  | 3 |  |
| SW10,11 |  | EVQQS107K |  | 2 |  |
|  |  |  | Miscellaneous |  |  |
|  |  | KL02 | LED Spacer | 12 |  |

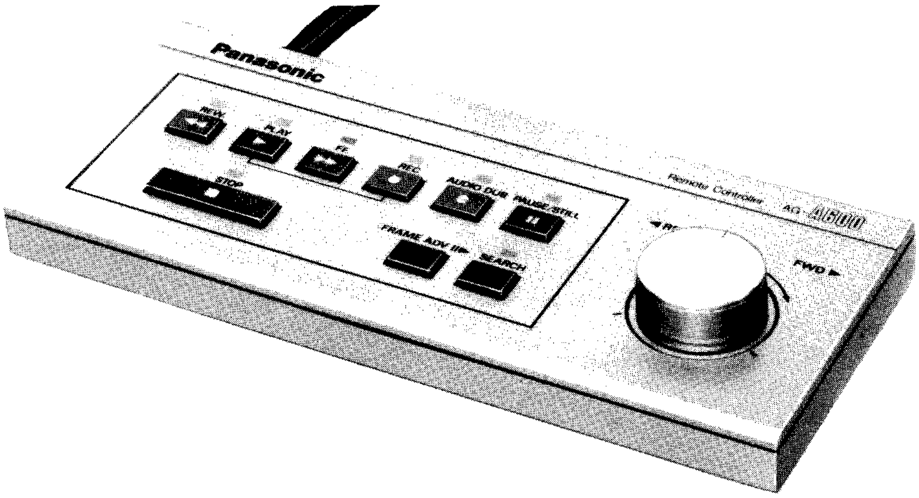
ORDER NO. VRD-8309-484

# Service Manual

Remote Controller

**Remote Controller**

## AG-A600-E -EN


Panasonic
REW
PLAY
FF
REC
AUDIO DUB
PAUSE/STILL
STOP
FRAME ADV
SEARCH
Remote Controller AG-A600
FWD

### SPECIFICATIONS

| | |
|---|---|
| Power Source: | 12 V DC (Supplied from the VTR) |
| Power Consumption: | Approx. 2.4 W |
| Operating Temperature: | 41 °F ~ 104 °F (5 °C ~ 40 °C) |
| Operating Humidity: | 35% ~ 80% |
| Weight: | 1.3 lbs (550 g) |
| Dimensions: | 8-5/8″(W) × 1-1/2″(H) × 3-5/8″(D)<br>218(W) × 38(H) × 92(D) mm |
| Standard Cable Length: | Approx. 10 ft (3 m) |
| Connector: | 34-pin male plug |

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

**Panasonic / National**

**Matsushita Electric Trading Co., Ltd.**
P.O. Box 288, Central Osaka Japan

# Introduction

This Remote Controller, AG-A600, has been developed for use with the video cassette recorder model AG-6200 and the video cassette player, model AG-6100 as well.

This unit effectively performs a wide variety of useful functions including the Search Forward, Search Reverse, Frame Advance, Audio Dub, Recording, Pause, Still, Playback, Fast Forward, Rewind and Stop, as desired.

# Contents

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Operating Instructions (Excerpt) .......................... 2

Disassembly Methods .......................................... 2

IC Information .......................................... 2

Remote Controller Schematic Diagram ...................... 3

Main C.B.A. (VEP22019) .................................. 4

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Replacement Parts List .................................. 6

- Mechanical Replacement Parts List ..................... 6
- Electrical Replacement Parts List ..................... 6

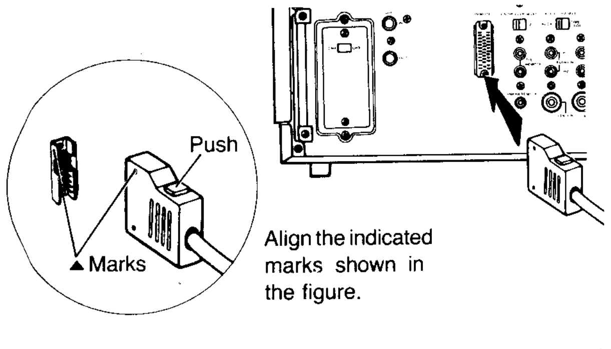
## FEATURES

- ■ Using this unit, you can operate the AG series VTR (AG-6200, 6100) about 3 meters away from the VTR.
- ■ The unit allows the following VTR functions (except as noted for the AG-6100 unit): Record, Play, Fast Forward, Rewind, Audio Dubbing, Pause/Still, Stop, Search, Frame Advance.
  - • When used with AG-6100, the Record and the Audio Dubbing Buttons are inoperative.

# Operating Instructions (Excerpt)

## CONNECTING THE REMOTE CONTROLLER

Connect the 34-pin plug of the remote controller to the Remote Control Connector (REMOTE) at the rear of VTR as shown below.



Align the indicated marks shown in the figure.

When connecting or disconnecting the plug of the remote controller, be sure to turn the Power Switch OFF and push the button to lock or unlock this connector as shown in the figure.

## HOW TO USE

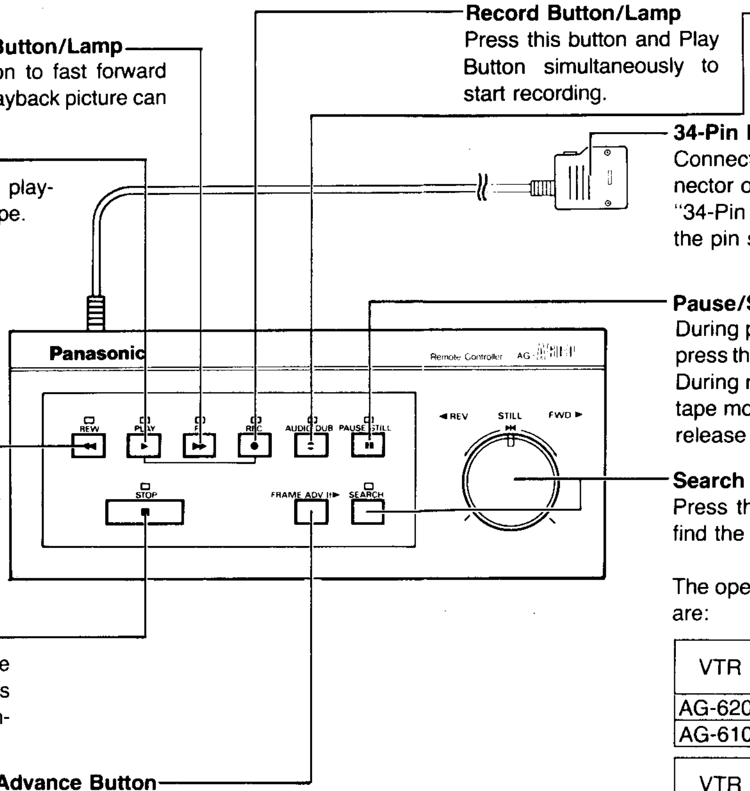
Use the push buttons of the remote controller in the same way as operating the VTR's front mounted function buttons. The push buttons can be operated either from the VTR or remote controller, but when using the search operation, remote controller side takes priority.

## 34-PIN REMOTE CONTROL CABLE PLUG

| Pin No. | Contents | Pin No. | Contents | Pin No. | Contents |
|---|---|---|---|---|---|
| 1 | REC SWITCH | 13 | FRAME ADV. SWITCH | 24 | PLAY HOLD |
| 2 | PLAY SWITCH | 14 | | 25 | FF HOLD |
| 3 | FF SWITCH | 15 | | 26 | REW HOLD |
| 4 | REW SWITCH | 16 | | 27 | |
| 5 | STOP SWITCH | 17 | REVERSE | 28 | AUDIO DUB HOLD |
| 6 | AUDIO DUB SWITCH | 18 | | 29 | PAUSE HOLD |
| 7 | PAUSE SWITCH | 19 | REMOTE 19 | 30 | REMOTE 30 |
| 8 | CASSETTE IN | 20 | | 31 | AUDIO DUB HOLD |
| 9 | | 21 | | 32 | |
| 10 | | 22 | | 33 | REMOTE 33 |
| 11 | | 23 | REC HOLD | 34 | +12 V |
| 12 | GND | | | | |

Note:
Be sure to set the controller selector switch to the "1" position on the VTR side.

## CONTROLS AND THEIR FUNCTIONS


Panasonic
Remote Controller AG-
REW
PLAY
REC
AUDIO DUB
PAUSE/STILL
STOP
FRAME ADV
SEARCH
◄REV
STILL
FWD►

**Fast Forward Button/Lamp**
Press this button to fast forward the tape. (No playback picture can be seen.)

**Play Button/Lamp**
Press this button to playback the recorded tape.

**Rewind Button/Lamp**
Press this button to rewind the tape. (No playback picture can be seen.)

**Stop Button/Lamp**
Press this button to stop the tape movement. (Tape is moved away from the cylinder head.)

**Frame Advance Button**
During Pause/Still playback, press this button to advance a still picture frame by frame.

**Record Button/Lamp**
Press this button and Play Button simultaneously to start recording.

**Audio Dubbing Button/Lamp**
Press this button and Play Button simultaneously to start audio dubbing.

**34-Pin Remote Control Cable Plug**
Connect this plug to the Remote Control Connector on the rear of the VTR. Refer to above, "34-Pin Remote Control Cable Plug Chart" for the pin signal assignments.

**Pause/Still Button/Lamp**
During playback (any playback mode included), press this button and still picture will appear. During recording, press this button to pause the tape movement. Press this button once more to release from Pause/Still mode.

**Search Button/Dial/Lamp**
Press this button, and then use Search dial to find the desired tape position.

The operation speeds for the two VTR models are:

| VTR | Reverse | | | | | | | | Still |
|---|---|---|---|---|---|---|---|---|---|
| AG-6200 | 10 | 6 | 2 | 1 | 1/2 | — | — | — | Still |
| AG-6100 | 10 | 6 | 2 | 1 | 1/2 | — | — | — | Still |

| VTR | Forward | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AG-6200 | 1/25 | 1/10 | 1/5 | 1/2 | 1 | 2 | 6 | 10 |
| AG-6100 | 1/25 | 1/10 | 1/5 | 1/2 | 1 | 2 | 6 | 10 |

# Disassembly Methods

1. Slowly remove the Search Dial.

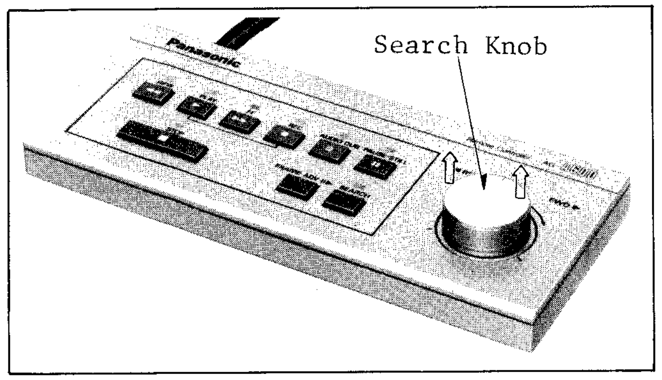

Search Knob
Panasonic

Figure D1.

2. Remove the nut (A), then reverse the unit.

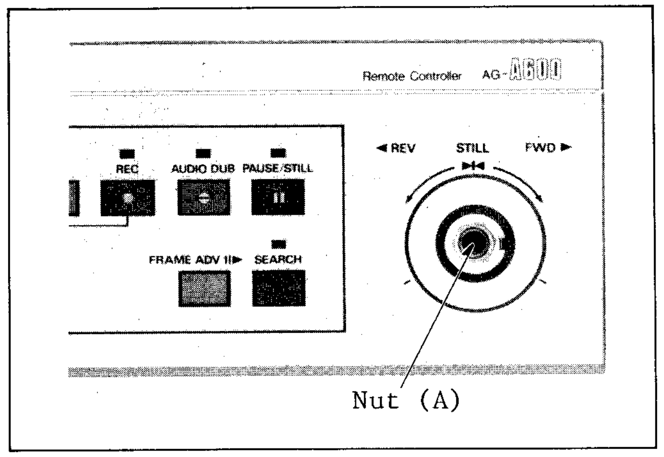

Remote Controller AG-
REC
AUDIO DUB
PAUSE/STILL
FRAME ADV
SEARCH
◄REV
STILL
FWD►
Nut (A)

Figure D2.

3. Remove the 6 screws (B).

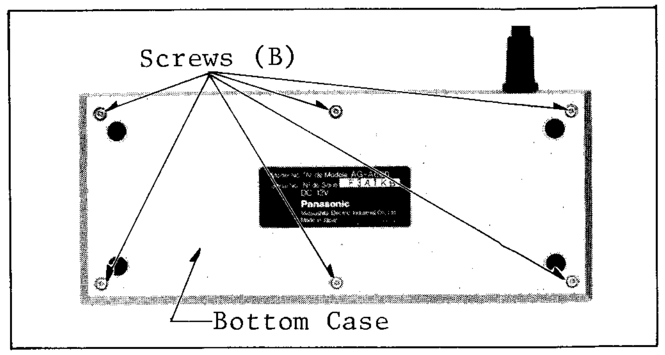

Screws (B)
Bottom Case

Figure D3.

4. Remove the 2 screws (C), and carefully lift the circuit board.

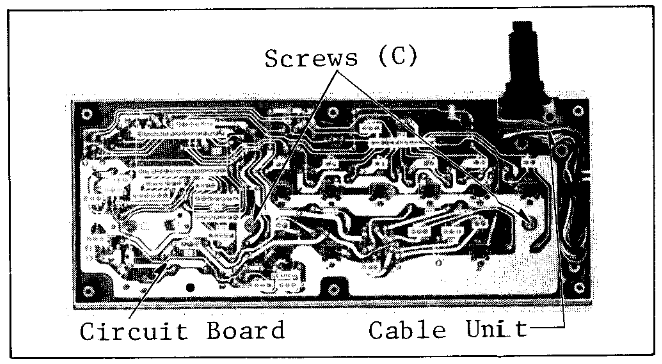

Screws (C)
Circuit Board
Cable Unit

Figure D4.

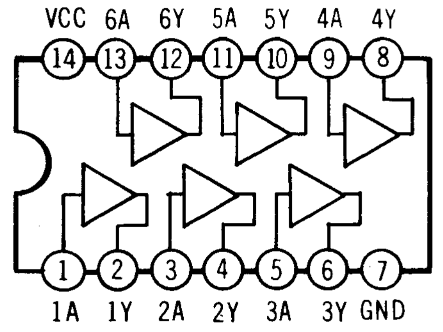
Note : When reassemble the unit, pay attention that the cables do not get between the case and circuit board.

# IC Information

## HD7407P

### Hex. Buffers/Drivers

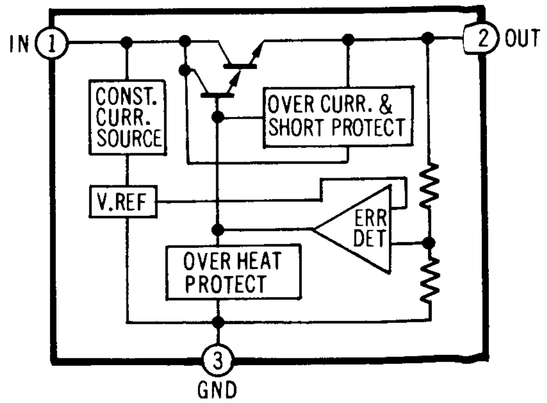
**Pin Assignment & Block Diagram**


VCC
6A
6Y
5A
5Y
4A
4Y
14
13
12
11
10
9
8
1
2
3
4
5
6
7
1A
1Y
2A
2Y
3A
3Y
GND

## μPC78M05

### Voltage Regulator (+5V/0.5A)

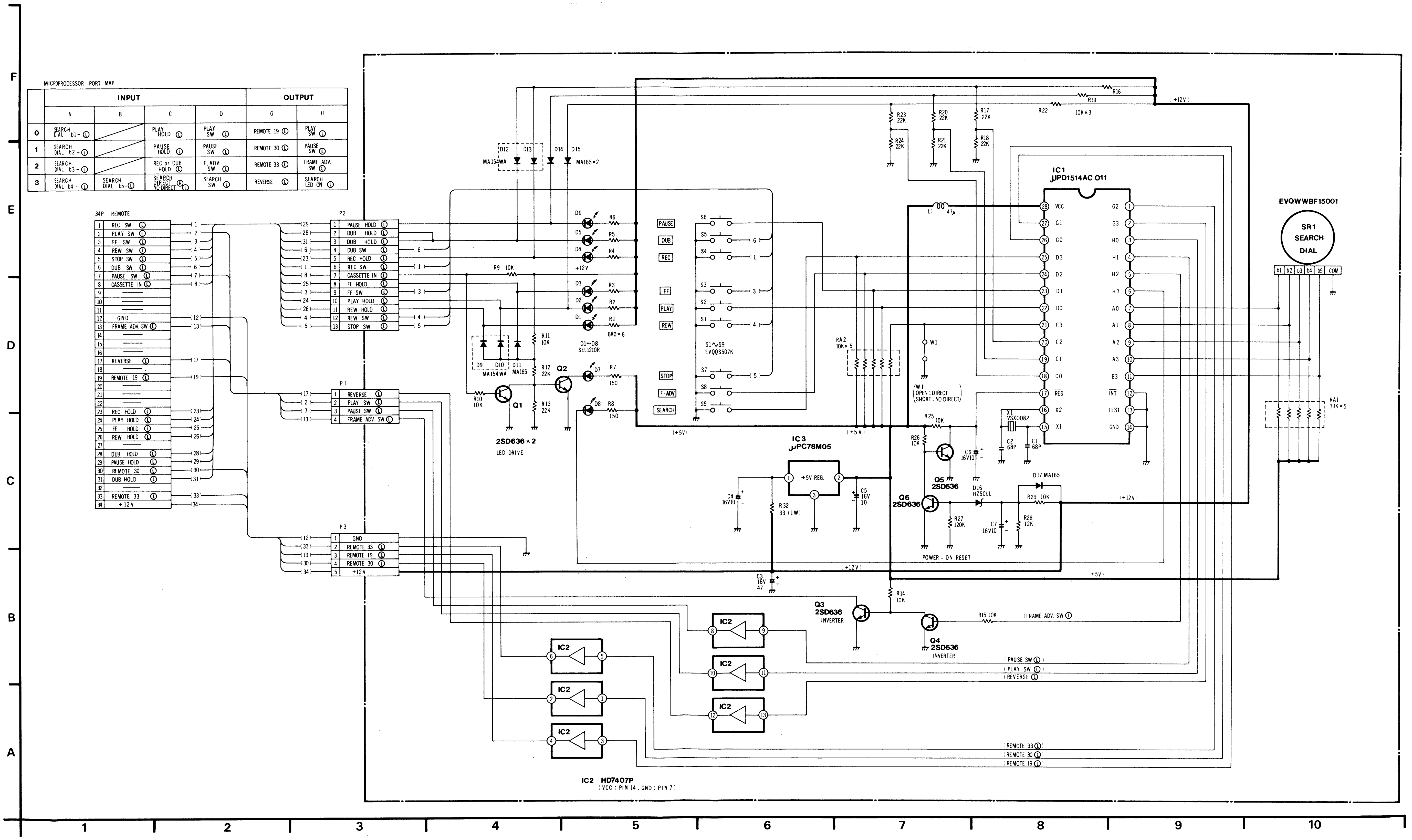
**Block Diagram**


IN
1
2
OUT
CONST. CURR. SOURCE
OVER CURR. & SHORT PROTECT
V.REF
ERR DET
OVER HEAT PROTECT
3
GND

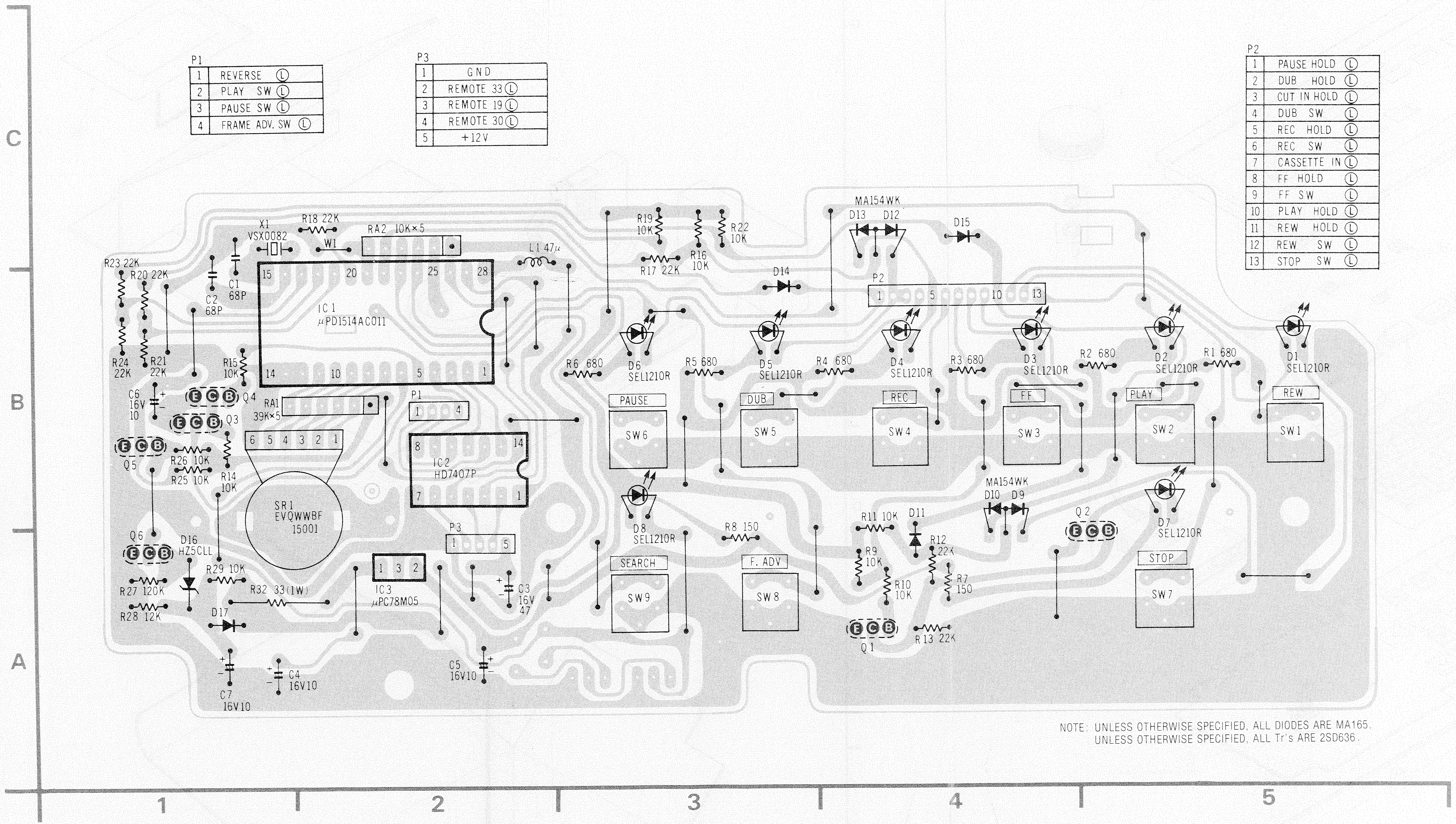
# REMOTE CONTROLLER SCHEMATIC DIAGRAM

MICROPROCESSOR PORT MAP

| | INPUT | | | | OUTPUT | |
|---|---|---|---|---|---|---|
| | A | B | C | D | G | H |
| 0 | SEARCH DIAL b1 - Ⓛ | | PLAY HOLD Ⓛ | PLAY SW Ⓛ | REMOTE 19 Ⓛ | PLAY SW Ⓛ |
| 1 | SEARCH DIAL b2 - Ⓛ | | PAUSE HOLD Ⓛ | PAUSE SW Ⓛ | REMOTE 30 Ⓛ | PAUSE SW Ⓛ |
| 2 | SEARCH DIAL b3 - Ⓛ | | REC or DUB HOLD Ⓛ | F.ADV SW Ⓛ | REMOTE 33 Ⓛ | FRAME ADV. SW Ⓛ |
| 3 | SEARCH DIAL b4 - Ⓛ | SEARCH DIAL b5 - Ⓛ | SEARCH DIRECT Ⓗ<br>NO DIRECT Ⓛ | SEARCH SW Ⓛ | REVERSE Ⓛ | SEARCH LED ON Ⓛ |


F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
34P REMOTE
REC SW Ⓛ
PLAY SW Ⓛ
FF SW Ⓛ
REW SW Ⓛ
STOP SW Ⓛ
DUB SW Ⓛ
PAUSE SW Ⓛ
CASSETTE IN Ⓛ
GND
FRAME ADV. SW Ⓛ
REVERSE Ⓛ
REMOTE 19 Ⓛ
REC HOLD Ⓛ
PLAY HOLD Ⓛ
FF HOLD Ⓛ
REW HOLD Ⓛ
DUB HOLD Ⓛ
PAUSE HOLD Ⓛ
REMOTE 30 Ⓛ
DUB HOLD Ⓛ
REMOTE 33 Ⓛ
+12V
P2
PAUSE HOLD Ⓛ
DUB HOLD Ⓛ
DUB HOLD Ⓛ
DUB SW Ⓛ
REC HOLD Ⓛ
REC SW Ⓛ
CASSETTE IN Ⓛ
FF HOLD Ⓛ
FF SW Ⓛ
PLAY HOLD Ⓛ
REW HOLD Ⓛ
REW SW Ⓛ
STOP SW Ⓛ
P1
REVERSE Ⓛ
PLAY SW Ⓛ
PAUSE SW Ⓛ
FRAME ADV. SW Ⓛ
P3
GND
REMOTE 33 Ⓛ
REMOTE 19 Ⓛ
REMOTE 30 Ⓛ
+12V
D12 D13 D14 D15
MA154WA
MA165×2
D6 D5 D4 D3 D2 D1 D7 D8
R6 R5 R4 R3 R2 R1 680×6
+12V
R9 10K
R11 10K
D9 D10 D11
MA154WA MA165
D1~D8 SEL1210R
R7 150
R8 150
R10 10K
Q1
Q2
R12 22K
R13 22K
2SD636×2
LED DRIVE
PAUSE
DUB
REC
FF
PLAY
REW
STOP
F-ADV
SEARCH
S6 S5 S4 S3 S2 S1 S7 S8 S9
S1~S9
EVQQS507K
(+5V)
R23 22K
R24 22K
R20 22K
R21 22K
R17 22K
R18 22K
R16
R19
R22
10K×3
(+12V)
IC1
μPD1514AC 011
L1 47μ
VCC G1 G0 D3 D2 D1 D0 C3 C2 C1 C0 RES X2 X1
G2 G3 H0 H1 H2 H3 A0 A1 A2 A3 B3 INT TEST GND
RA2
10K×5
W1
(W1 OPEN: DIRECT
SHORT: NO DIRECT)
X1
VSX0082
C2 68P
C1 68P
R25 10K
R26 10K
Q5 2SD636
C6 16V10
IC3
μPC78M05
+5V REG.
C4 16V10
R32 33 (1W)
C5 16V 10
Q6 2SD636
D16 HZ5CLL
D17 MA165
R29 10K
R27 120K
C7 16V10
R28 12K
POWER - ON RESET
(+12V)
(+5V)
C3 16V 47
R14 10K
Q3 2SD636
INVERTER
Q4 2SD636
INVERTER
R15 10K
(FRAME ADV. SW Ⓛ)
(PAUSE SW Ⓛ)
(PLAY SW Ⓛ)
(REVERSE Ⓛ)
(REMOTE 33 Ⓛ)
(REMOTE 30 Ⓛ)
(REMOTE 19 Ⓛ)
IC2
IC2 HD7407P
(VCC: PIN 14, GND: PIN 7)
EVQWWBF15001
SR1
SEARCH
DIAL
b1 b2 b3 b4 b5 COM
RA1
39K×5

# MAIN C.B.A. (VEP22019)


C
B
A
1
2
3
4
5
X1
VSX0082
R18 22K
RA2 10K×5
W1
L1 47μ
R19 10K
R16 10K
R17 22K
R22 10K
MA154WK
D13
D12
D15
D14
P2
1
5
10
13
R23 22K
R20 22K
C1 68P
C2 68P
IC1
μPD1514AC011
15
20
25
28
14
10
5
1
R24 22K
R21 22K
R15 10K
C6 16V 10
Q4
Q3
Q5
E C B
RA1 39K×5
P1
1
4
6 5 4 3 2 1
IC2
HD7407P
8
14
7
1
R26 10K
R25 10K
R14 10K
SR1
EVQWWBF
15001
Q6
D16
HZ5CLL
R29 10K
R27 120K
R28 12K
R32 33(1W)
D17
IC3
μPC78M05
1 3 2
P3
1
5
C3 16V 47
C7 16V10
C4 16V10
C5 16V10
R6 680
D6 SEL1210R
R5 680
D5 SEL1210R
R4 680
D4 SEL1210R
R3 680
D3 SEL1210R
R2 680
D2 SEL1210R
R1 680
D1 SEL1210R
PAUSE
SW6
DUB
SW5
REC
SW4
FF
SW3
PLAY
SW2
REW
SW1
D8 SEL1210R
R8 150
SEARCH
SW9
F. ADV
SW8
R11 10K
D11
R12 22K
R9 10K
R10 10K
R7 150
MA154WK
D10
D9
Q2
D7 SEL1210R
STOP
SW7
Q1
R13 22K

P1

| | |
|---|---|
| 1 | REVERSE Ⓛ |
| 2 | PLAY SW Ⓛ |
| 3 | PAUSE SW Ⓛ |
| 4 | FRAME ADV. SW Ⓛ |

P3

| | |
|---|---|
| 1 | GND |
| 2 | REMOTE 33Ⓛ |
| 3 | REMOTE 19Ⓛ |
| 4 | REMOTE 30Ⓛ |
| 5 | +12V |

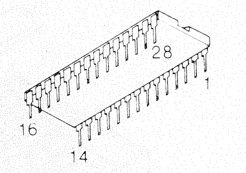
P2

| | |
|---|---|
| 1 | PAUSE HOLD Ⓛ |
| 2 | DUB HOLD Ⓛ |
| 3 | CUT IN HOLD Ⓛ |
| 4 | DUB SW Ⓛ |
| 5 | REC HOLD Ⓛ |
| 6 | REC SW Ⓛ |
| 7 | CASSETTE IN Ⓛ |
| 8 | FF HOLD Ⓛ |
| 9 | FF SW Ⓛ |
| 10 | PLAY HOLD Ⓛ |
| 11 | REW HOLD Ⓛ |
| 12 | REW SW Ⓛ |
| 13 | STOP SW Ⓛ |

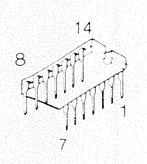
NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165.
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636.

| Main C.B.A. (VEP22019) | |
|---|---|
| Q1 | A-4 |
| Q2 | B-5 |
| Q3 | B-1 |
| Q4 | B-1 |
| Q5 | B-1 |
| Q6 | A-1 |
| IC1 | B-2 |
| IC2 | B-2 |
| IC3 | A-2 |

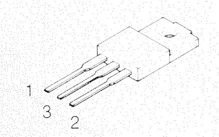
## ICs, Transistors Information



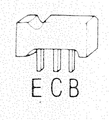
μPD1514AC
(IC1)



HD7407P
(IC2)



μPC78M05
(IC3)



2SD636
(Q1~6)

## ICs DC VOLTAGE CHART

| REF. NO. / MODE | IC1 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STOP | 3.97 | 3.97 | 3.97 | 3.97 | 3.53 | 3.53 | 5.05 | 5.05 | 0 | 0 | 5.05 | 0 | 0 | 0 | 1.48 | 0.54 | 5.06 | 4.52 | 4.54 | 4.58 | 0 | 5.06 | 5.06 | 5.06 | 5.06 | 3.96 | 3.94 | 4.98 |
| PLAY | 3.97 | 3.94 | 3.96 | 3.97 | 3.53 | 3.53 | 5.05 | 5.05 | 0 | 0 | 5.05 | 0 | 0 | 0 | 1.47 | 0.54 | 5.06 | 0.33 | 4.53 | 4.57 | 0 | 5.06 | 5.06 | 5.06 | 5.06 | 3.95 | 3.93 | 4.98 |
| REC | 3.82 | 3.79 | 3.81 | 3.82 | 3.39 | 3.39 | 4.88 | 4.88 | 0 | 0 | 4.88 | 0 | 0 | 0 | 1.45 | 0.54 | 4.90 | 0.35 | 4.55 | 0.35 | 0 | 4.90 | 4.90 | 4.90 | 4.90 | 3.83 | 3.81 | 4.81 |
| F.F | 3.95 | 3.92 | 3.95 | 3.95 | 3.53 | 3.52 | 5.05 | 5.05 | 0 | 0 | 5.05 | 0 | 0 | 0 | 1.47 | 0.54 | 5.04 | 4.53 | 4.55 | 4.59 | 0 | 5.06 | 5.06 | 5.06 | 5.06 | 3.96 | 3.94 | 4.98 |
| REW | 3.96 | 3.94 | 3.96 | 3.97 | 3.53 | 3.53 | 5.05 | 5.05 | 0 | 0 | 5.05 | 0 | 0 | 0 | 1.47 | 0.53 | 5.04 | 4.53 | 4.55 | 4.60 | 0 | 5.06 | 5.06 | 5.06 | 5.06 | 3.96 | 3.94 | 4.98 |

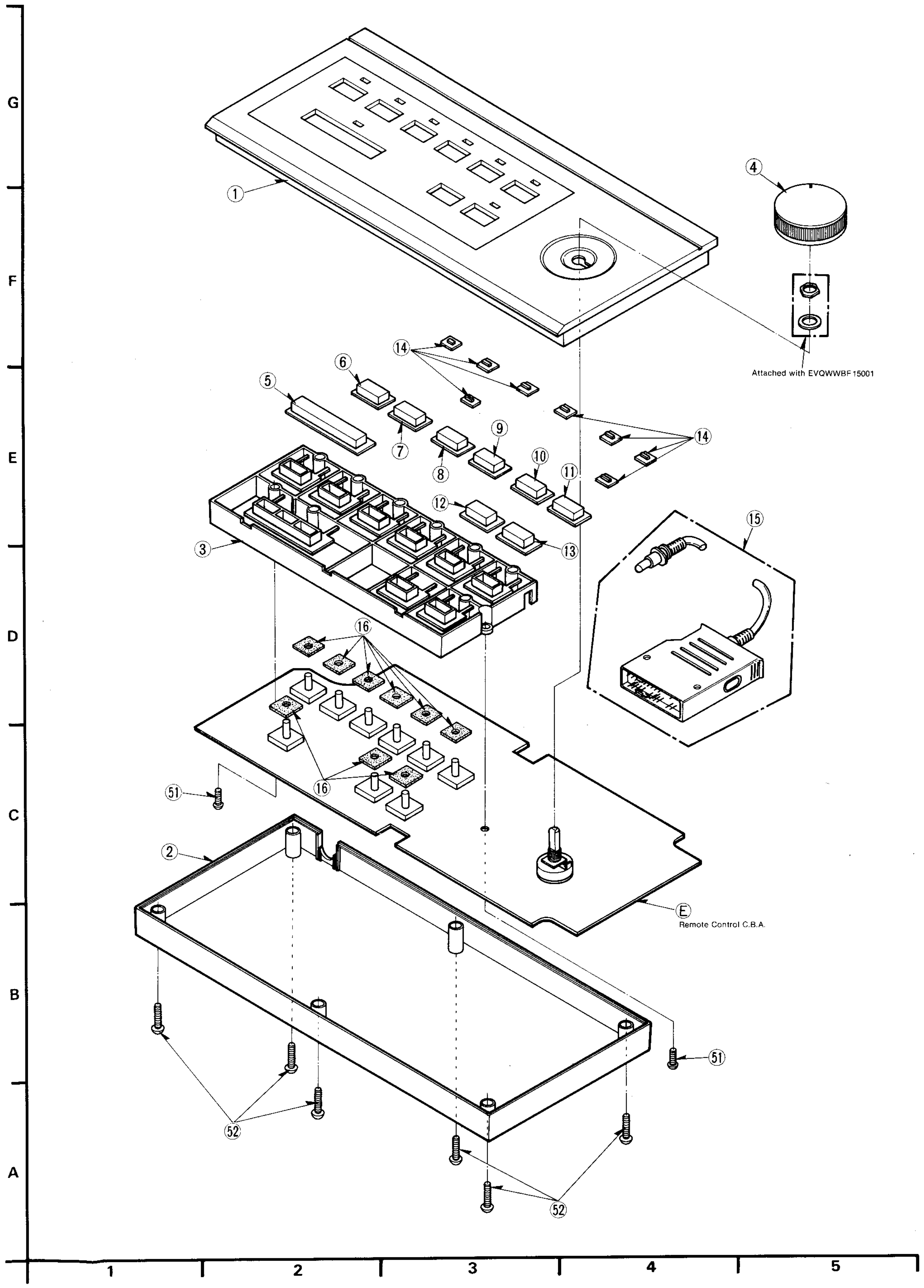
| REF. NO. / MODE | IC2 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | IC3 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STOP | 3.94 | 4.64 | 3.96 | 4.60 | 3.86 | 4.60 | 0 | 4.60 | 3.96 | 4.63 | 3.95 | 4.64 | 3.93 | 5.06 | 7.56 | 5.07 | 0 |
| PLAY | 3.94 | 4.63 | 3.96 | 4.61 | 3.96 | 4.60 | 0 | 4.58 | 3.96 | 4.60 | 3.96 | 4.63 | 3.93 | 5.07 | 8.25 | 5.07 | 0 |
| REC | 3.81 | 4.73 | 3.83 | 4.74 | 3.82 | 4.71 | 0 | 4.74 | 3.81 | 4.74 | 3.81 | 4.73 | 3.79 | 4.90 | 8.18 | 4.90 | 0 |
| F.F | 3.94 | 4.63 | 3.96 | 4.63 | 3.96 | 4.63 | 0 | 4.63 | 3.96 | 4.61 | 3.96 | 4.64 | 3.83 | 5.07 | 8.28 | 5.07 | 0 |
| REW | 3.94 | 4.64 | 3.96 | 4.60 | 3.96 | 4.60 | 0 | 4.59 | 3.97 | 4.65 | 3.96 | 4.64 | 3.83 | 5.07 | 8.30 | 5.07 | 0 |

## TRANSISTORs DC VOLTAGE CHART

| REF. NO. | Q1 | | | Q2 | | | Q3 | | | Q4 | | | Q5 | | | Q6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B |
| STOP | 0 | 0.72 | −0.1 | 0 | −0.1 | 0.72 | 0 | 4.62 | 0.01 | 0 | 0.01 | 0.64 | 0 | 5.06 | 0 | 0 | 0 | 0.65 |
| PLAY | 0 | 0.33 | −0.08 | 0 | 3.79 | 0.33 | 0 | 4.53 | 0.01 | 0 | 0.01 | 0.64 | 0 | 5.06 | 0 | 0 | 0 | 0.65 |
| REC | 0 | 0.36 | −0.08 | 0 | 3.61 | 0.36 | 0 | 4.73 | 0.01 | 0 | 0.01 | 0.65 | 0 | 4.90 | 0 | 0 | 0 | 0.64 |
| F.F | 0 | 0.32 | −0.08 | 0 | 3.79 | 0.32 | 0 | 4.61 | 0.01 | 0 | 0.01 | 0.64 | 0 | 5.06 | 0 | 0 | 0 | 0.65 |
| REW | 0 | 0.34 | −0.08 | 0 | 3.79 | 0.34 | 0 | 4.62 | 0.01 | 0 | 0.01 | 0.64 | 0 | 5.06 | 0 | 0 | 0 | 0.65 |

# EXPLODED VIEWS

## ❶ Chassis & Frame Section


G
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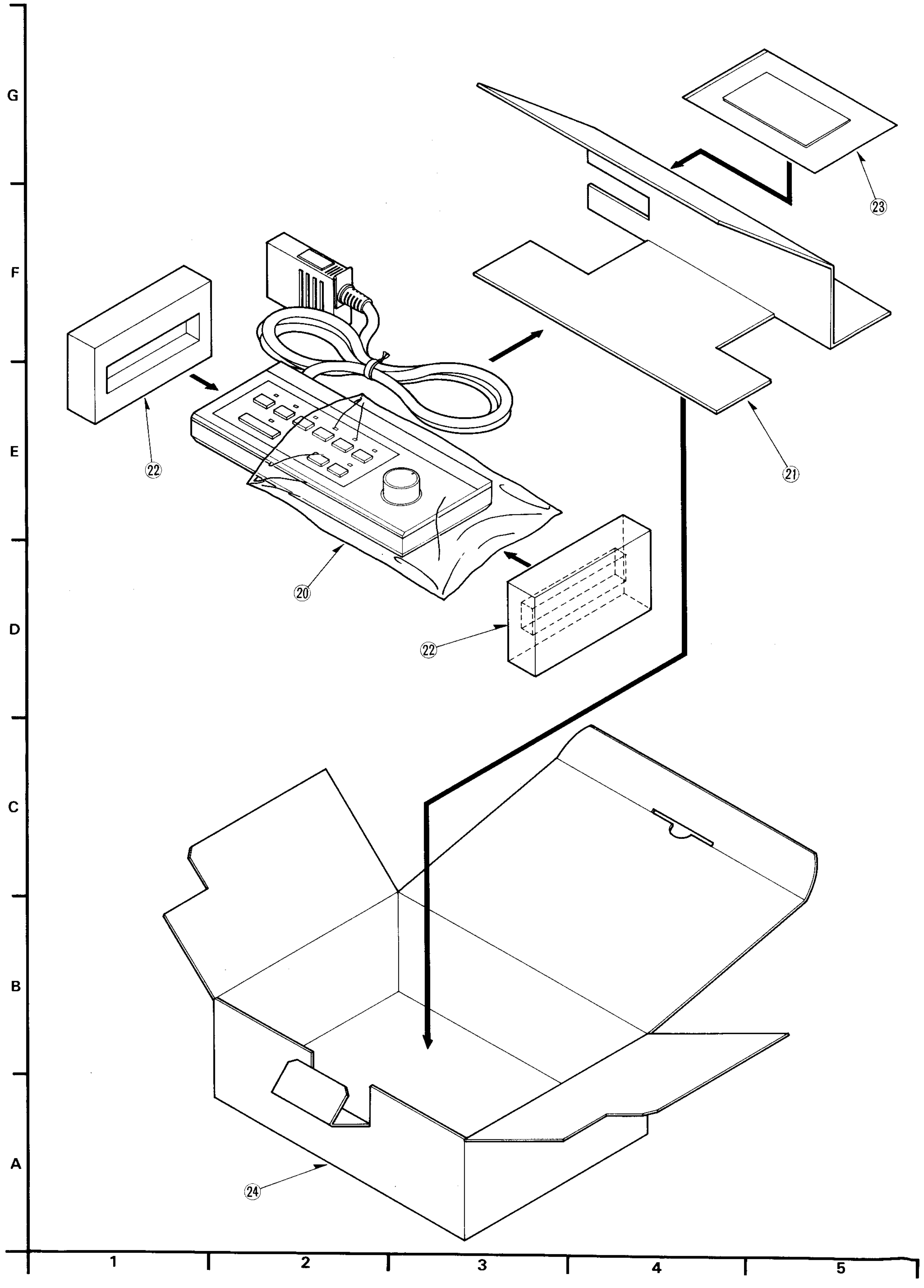
Ⓔ
Remote Control C.B.A.
Attached with EVQWWBF15001
(51)
(52)

## ❷ Packing Parts Section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# MECHANICAL REPLACEMENT PARTS LIST

**Model No. AG-A600-E/EN**

**Notes:**
1. * Be sure to make your orders of replacement parts according to this list.
2. * "Ⓡ" in Remarks column indicates recommended parts.

| Ref. No. | | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|---|
| 1 | 1 | VKM0258 | Upper Case Unit | 1 | (E) Ⓡ |
| 1 | 1 | VKM0273 | Upper Case Unit | 1 | (EN) Ⓡ |
| 2 | 1 | VYK0659 | Lower Case Unit | 1 | (E) Ⓡ |
| 2 | 1 | VYK0660 | Lower Case Unit | 1 | (EN) Ⓡ |
| 3 | 1 | VKC0113 | Button Spacer | 1 | Ⓡ |
| 4 | 1 | VGU1190 | Search Dial | 1 | Ⓡ |
| 5 | 1 | VGT0146 | Button (Blue: ■ ) | 1 | Ⓡ |
| 6 | 1 | VGT0140 | Button (Gray:◀◀ ) | 1 | Ⓡ |
| 7 | 1 | VGT0142 | Button (Gray: ▶ ) | 1 | Ⓡ |
| 8 | 1 | VGT0141 | Button (Gray: ▶▶) | 1 | Ⓡ |
| 9 | 1 | VGT0144 | Button (Red : ● ) | 1 | Ⓡ |
| 10 | 1 | VGT0145 | Button (Red : ⏏ ) | 1 | Ⓡ |
| 11 | 1 | VGT0143 | Button (Blue: ❚❚ ) | 1 | Ⓡ |
| 12 | 1 | VGT0139 | Button (Gray:No Mark) | 1 | Ⓡ |
| 13 | 1 | VGU2214 | Button (Blue:No Mark) | 1 | Ⓡ |
| 14 | 1 | VGL0068 | LED Cover | 8 | |
| 15 | 1 | VEC0345 | 34P Connector Unit | 1 | |
| 16 | 1 | VMT0102 | Damper | 9 | |
| 20 | 2 | XZB15X35B05 | Polyethyiene Bag | 1 | |
| 21 | 2 | VPN0961 | Pad (A) | 1 | |
| 22 | 2 | VPN0962 | Pad (B) | 2 | |
| 23 | 2 | VQF1169 | Fan Bag | 1 | (E) |
| 23 | 2 | VQF1170 | Fan Bag | 1 | (EN) |
| 24 | 2 | VPG1582 | Packing Case | 1 | (E) |
| 24 | 2 | VPG1583 | Packing Case | 1 | (EN) |
| | | | Screws | | |
| 51 | 1 | XTB3+10BFN | | 2 | |
| 52 | 1 | XTB26+16GFN | | 6 | |

# ELECTRICAL REPLACEMENT PARTS LIST

**Model No. AG-A600-E/EN**

**Notes:**
1. * Be sure to make your orders of replacement parts according to this list.
2. * "Ⓡ" in Remarks column indicates recommended parts.
3. Unless otherwise specified,
   All resistors are in OHMS (Ω), 1/4W ± 5% carbon. K=1,000Ω, M=1,000KΩ.
   All capacitors are in MICROFARADS (μF), ± 10% P=μμF.

| Ref. No. | Part No. | Part Name & Description | Pcs / Set | Remarks |
|---|---|---|---|---|
| | VEP22019 | Remote Control C.B.A. | | |
| | | Integrated Circuits | | |
| IC1 | μPD1514AC011 | | 1 | Ⓡ |
| IC2 | HD7407P | | 1 | |
| IC3 | μPC78M05 | | 1 | or AN7805 |
| | | Transistors | | |
| Q1∿Q6 | 2SD636 | | 6 | (Q,R,S) Ⓡ |
| | | Diodes | | |
| D1∿D8 | SEL1210R | LED | 8 | Ⓡ |
| D9,10 | MA154WA | Twin Diode | 1 | |
| D11 | MA165 | | 1 | |
| D12,13 | MA154WA | Twin Diode | 1 | |
| D14,15 | MA165 | | 2 | |
| D16 | HZ5CLL | Zener | 1 | |
| D17 | MA165 | | 1 | |
| | | Resistors | | |
| R1∿R6 | ERDS2TJ681 | 680 | 6 | |
| R7,8 | ERDS2TJ151 | 150 | 2 | |
| R9∿R11 | ERDS2TJ103 | 10K | 3 | |
| R12,13 | ERDS2TJ223 | 22K | 2 | |
| R14∿R16 | ERDS2TJ103 | 10K | 3 | |
| R17,18 | ERDS2TJ223 | 22K | 2 | |
| R19 | ERDS2TJ103 | 10K | 1 | |
| R20,21 | ERDS2TJ223 | 22K | 2 | |
| R22 | ERDS2TJ103 | 10K | 1 | |
| R23,24 | ERDS2TJ223 | 22K | 2 | |
| R25,26 | ERDS2TJ103 | 10K | 2 | |
| R27 | ERDS2TJ124 | 120K | 1 | |
| R28 | ERDS2TJ123 | 12K | 1 | |
| R29 | ERDS2TJ103 | 10K | 1 | |
| R32 | ERG1ANJ330 | Metal Oxide 1W 33 | 1 | |
| | | Resistor Arrays | | |
| RA1 | EXBP85393K | 39K×5 | 1 | |
| RA2 | EXBP85103K | 10K×5 | 1 | |
| | | Capacitors | | |
| C1,2 | ECCF1H680JC | Ceramic 50V 68P | 2 | |
| C3 | ECEA1CK470 | Electrolytic 16V 47 | 1 | |
| C4∿C7 | ECEA1CK100 | Electrolytic 16V 10 | 4 | |
| | | Connectors | | |
| P1 | VJP1231 | 4P | 1 | |
| P2 | VJP1393 | 13P | 1 | |
| P3 | VJP1232 | 5P | 1 | |
| | | Miscellaneous | | |
| S1∿S9 | EVQQS507K | Switches | 9 | Ⓡ |
| SR1 | EVQWWBF15001 | | 1 | Ⓡ |
| | KL02 | Spacer | 8 | |
| | VJF0052 | Clamper | 1 | |
| X1 | VSX0082 | Ceramic OSC 3.58MHz | 1 | |
| L1 | VLQEL06F470J | Coil 47μ | 1 | |